Course Information
Mondays, Wednesdays, & Fridays 10:30 – 11:20 AM
Undergraduate Learning Center, UGLC 116

Instructor Information

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Email</th>
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<tbody>
<tr>
<td>Dr. Elizabeth Day (she/her)</td>
<td><a href="mailto:elday@utep.edu">elday@utep.edu</a></td>
</tr>
<tr>
<td>Dr. Mahesh Narayan (he/him)</td>
<td><a href="mailto:mnarayan@utep.edu">mnarayan@utep.edu</a></td>
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<table>
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<tr>
<th>Teaching Assistant</th>
<th>Email</th>
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<tbody>
<tr>
<td>Henk van den Bogaard (he/him)</td>
<td><a href="mailto:hsvandenbogaard@miners.utep.edu">hsvandenbogaard@miners.utep.edu</a></td>
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<tr>
<th>Peer Leaders</th>
<th>Peer Leader Contact Info on Blackboard</th>
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Email is the best way to reach us. Please allow me 48 hours to respond, and then send a polite reminder. If you send a message through Blackboard, we likely will never see it.

To expedite a response, please put “CHEM 1306: [topic of email]” in the subject line

Dr. Day’s office: CCSB 2.0114
Office hours: Mondays and Wednesdays 11:30 AM – 12:20 PM or by appointment
Dr. Narayan’s office: CCSB 2.0202
Office hours: By appointment

Course Description
The UTEP course catalogue describes this course as a continuation of CHEM 1305 which includes intermolecular forces, quantitative aspects of chemical kinetics, equilibrium, acids and bases, thermodynamics, and electrochemistry. The course content will build on the previous course’s exploration of the electrostatic foundations of atomic/molecular structure and its relationship to physical and chemical properties of substances. This course will use ideas about the electrostatic interactions that govern reactivity within and between molecules as well as the accompanying energy changes that drive reactions. These fundamental ideas will intersect with the skills of nomenclature, using mathematical models and evidence to characterize and monitor these atomic/molecular phenomena, and using mechanistic arrows as models for explaining and predicting this atomic/molecular behavior.

Before beginning this class, you should be able to do the following performances. Some of these may be reviewed briefly as they come up, but the expectation is that you have this background knowledge and skills:
- Use mathematical terms and equations, including: algebra, exponential numbers, logarithms, ratio and proportion
- Use scientific notation appropriately
- Use significant figures appropriately
• Do calculations that require unit conversions
• Use SI units and their appropriate prefix (i.e., nano-, mega-, etc.)
• Make and interpret graphs
• Interpret word problems

This course is the second in a sequence of General Chemistry for scientists, engineers, and pre-medical/pre-health professionals. The expectation is that learners enrolled in this course need a foundation for work in advanced chemistry and related sciences.

Prerequisites: CHEM 1305, CHEM 1105, and MATH 1508 or MATH 1411 or MATH SAT score of at least 600. Corequisite: CHEM 1106, if required in the student’s degree plan.

This course has a required workshop component. You should be co-enrolled in CHEM 1306 lecture as well as a CHEM 1306 workshop associated with Dr. Day’s sections. This is a two-hour weekly period guided by a Peer Leader to enhance your understanding of the content and practice using the knowledge and skills discussed in the lecture component. This is not the CHEM 1106 General Chemistry II laboratory course.

As a course listed as “hyflex”, a hybrid, flexible format that allows for learners to attend in-person, online synchronously (live streamed), or online asynchronously (recorded videos of live lectures). You may choose how to attend, and as part of the flexibility you do not have to commit to one mode of attendance for the semester (i.e., first few weeks could be all in-person, followed by attending a few times online, or vice versa); the goal is for you to attend and stay engaged, whether online or not. You can access the synchronous online attendance through the Zoom link in Blackboard, and the live recorded lectures will be posted after class. There will be activities for engagement points in any of these options, so please stay on pace with the class. However, this flexibility does not extend to workshop, which must be attended in-person due to technical limitations.

Course Learning Objectives

Learners in this course will be actively engaged in:
• Explaining and using scientific models of how the existence of atoms leads to the conservation of matter.
• Using appropriate scientific models and theories to predict and explain chemical and physical phenomena.
• Constructing and use these models of chemical species to predict chemical and physical properties.
• Explaining how and why the atomic-molecular structure determines the properties of a substance, as well as the reverse, how a substance’s properties can be attributed to features of its atomic/molecular structure.
• Predicting and explaining the energy changes associated with the interactions of atoms, molecules, and ions.
• Applying systems thinking to both the molecular and macroscopic systems.
• Using mechanistic reasoning to predict the products of common types of reactions, including the outcome of coupled reactions.
• Using mathematical models to predict and explain the factors that impact the rate and extent of reactions.
Each unit within the course (generally corresponding to the chapters in the associated textbook) will have more specific learning objectives to align our activities with the above overarching course learning objectives.

**Required Learning Materials**

This course will use the curriculum *CLUE: Chemistry, Life, the Universe, and Everything*. The textbook is provided as an open educational resource (OER) at no charge to learners. An online copy is available [here](#) and a PDF version will be uploaded to the learning management system Blackboard.

In-class activities will use the iClicker response management system. This is at no cost to learners, but you will need a phone, tablet, or laptop with Internet or SMS capabilities to respond to the prompts.

Homework assignments and course activities will be administered through Blackboard. Microsoft Office products are needed to complete these activities. Please see the technology section for more information on how to obtain these UTEP-provided services.

For the required co-enrollment in CHEM 1306 workshop, learners are expected to purchase the CHEM 1306 workbook “General Chemistry by Exploration: Second Semester General Chemistry” for the Spring 2023 semester (ISBN: 9781943668328). This is available for purchase in the UTEP bookstore for $115.

Exams will be in-person, written exams provided by the instructor. Each exam will be comprehensive to material covered in the course and reflect the course activities and homework. You will need a non-programmable calculator for completing calculations and a pencil. Answer sheets and exam booklets will be provided.

Please keep in mind: all materials used in this course are protected by copyright law. Course lecture slides, notes, assignments, and assessments are only for the use of learners currently enrolled in this course, and only for the purpose of this course, and may not be further disseminated.

**Course Evaluation**

This table designates that the corresponding letter grade for a range of the percentage of points earned in the course.

<table>
<thead>
<tr>
<th>Grading Scheme</th>
<th>Below 60</th>
<th>60 – 69.9</th>
<th>70 – 79.9</th>
<th>80 – 89.9</th>
<th>90 – 100</th>
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<tr>
<td></td>
<td>F</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td>A</td>
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**Note:** Learners need to obtain a grade of C or better to pass this class.

“Classes dropped prior to the official census date of any term will be deleted from the student’s semester record.” This term’s census date is February 1st. After this date, the University permits any student to drop with an automatic “W” until the final day withdraw. The final day to withdraw from this class is March 30th. No requests for a withdrawal will be approved after that date, and students who withdraw after this date must receive grades of “F”.
The following table broadly outlines the components that contribute to your course grade. This scheme subject to revision as need be and with posted announcements of changes. Extra credit opportunities will be announced in class and on Blackboard, with those earned extra credit points added to the final point total at the end of the semester.

**Distribution of Points**

<table>
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<tr>
<th>Course Component</th>
<th>Percent of Points</th>
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<tr>
<td>Homework</td>
<td>15%</td>
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<tr>
<td>Lecture Activities</td>
<td>20%</td>
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<tr>
<td>Workshop Activities</td>
<td>15%</td>
</tr>
<tr>
<td>Three Midterm Exams</td>
<td>30%</td>
</tr>
<tr>
<td>Semester Project</td>
<td>10%</td>
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<tr>
<td>Final Exam</td>
<td>10%</td>
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Homework assignments will be activities assigned through Blackboard Ultra. Learners are expected to give an honest and thoughtful attempt on all assignments and follow assignment instructions. Homework assignments are expected to be completed as an individual effort.

Attendance and engagement are critical to stay on track with the activities and ways of thinking expected of learners in this class. This grade will encompass both lecture and workshop attendance and the level of participation/engagement of a learner in these spaces. Activities within the lecture course will be provided and completed as small groups. Workshop activities will occur during the 2-hour course component and use provided worksheets and/or the CHEM 1306 workbook described above.

This course will have three midterm examinations covering the unit material. It is expected that ideas and ways of thinking from the beginning of the course will be used. Through the learners’ active participation in-class, the content of these exams will reflect the activities assigned as homework. The final exam will be an in-class paper-based exam. In lieu of a makeup exam, the final may be used to replace your lowest exam grade.

To assist you in avoiding scheduling conflicts, exam dates are tentatively scheduled for:
- Friday, February 10, 10:30 – 11:20 AM
- Wednesday, March 8, 10:30 – 11:20 AM
- Wednesday, April 19, 10:30 – 11:20 AM
- Final exam: Tuesday, May 9, 7 – 9:45 AM

During our semester, we will explore how chemistry has shaped (and been shaped by) the history of El Paso. To best represent what you have taken away from these discussions, you will create a communication – for example, a short paper, a short video, or a small art project – to accomplish two goals of your choice: (1) explain a chemistry phenomenon, and (2) describe or explain how this chemistry impacts El Paso through either literature sources, local news sources, or oral history with a community member. The goal of this project is to holistically represent our discussions, and while structure will be provided in the form of templates, the project is intended to leave the subject and scope up to the learner.
**Policies**

**Community Agreement**
The expectation in this course is that learners participate in course activities and discussions with mutual respect. Participation in this course—whether as an individual or within team-based activities—will be expected to follow our mutually-agreed framework for how we would like to be treated by one another in this course. Examples of my expectations would be offering undivided attention to the person speaking, claiming and distinguishing our opinions, sensitivity to sociocultural context, and disagreement without disrespect.

**Absences**
Given the flexible format, absences will be considered "unexcused" if the corresponding in-class assignments are not turned in by their deadlines. After 3 unexcused absences you will be asked to meet with Drs. Day and/or Narayan. After the 4th unexcused absence, you may be dropped from the course. If your absence is necessary, please contact the instructional team ahead of time to discuss.

**Tardiness**
If you are late arriving to an in-person lecture, please enter quietly so as not to disturb others; any missed engagement points are not available to make up. If you are 10 or more minutes late for workshop, points may be subtracted from your daily attendance score.

**Missed Assignments & Deadlines**
Exams and in-class assignments cannot be made up without an excused absence. Some deadlines may be extended with an excused absence from Dr. Day. Please see Dr. Day for verifying the excused absence properly.

**Class Recordings**
The use of recordings will enable learners to participate in course activities for engagement points, as well as provide all learners an opportunity to review course lectures at their convenience. This use of technology is governed by the Federal Educational Rights and Privacy Act (FERPA) and UTEP’s acceptable-use policy. Storage of recordings of class sessions will be stored by UTEP in accordance with FERPA and UTEP’s policies; subject to Institutional Review Board (IRB) permission, recordings may be used for research purposes. However, unauthorized sharing of these class recordings may result in disciplinary action.

**Technology**
Course content is delivered via the Internet through the Blackboard learning management system. Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Google Chrome and Mozilla Firefox are the best browsers for Blackboard; other browsers may cause complications. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.

If you do not have a word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook and more) for free via UTEP’s Microsoft Office Portal. Click the following link for more information about [Microsoft Office 365](https://www.office.com) and follow the instructions.

**IMPORTANT:** If you encounter technical difficulties beyond your scope of troubleshooting, please contact the UTEP [Help Desk as they are trained specifically in assisting with](https://www.utepl.edu/it)
Learner Conduct

Class Environment
Cell phones must be on vibrate, but ideally placed in Do Not Disturb/Airplane mode. Use of cell phones for personal business rather than class work may result in points docked from your attendance score for that day. Each student is responsible for notice of and compliance with the provisions of the Regents’ Rules and Regulations. Use of laptops and tablets are allowed only when specifically requested by the instructor.

Academic Dishonesty
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. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as one’s own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline.

Plagiarism
“Plagiarism” means the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit. This includes intentionally, knowingly, or carelessly presenting the work of another as one’s own; failing to credit sources used in a work product; attempting to receive credit for work performed by another; failing to cite the World Wide Web, databases, and other electronic resources. Written work will be checked for plagiarism.

All course materials are protected by copyright law. As such, do not copy course materials—assignments, homework or exam questions, or answers—to any publicly accessible website (such as Chegg or other “study” websites). Not only is this a violation of copyright law and UTEP policy, but the quality of “answer” those websites generate is so obviously wrong that it’s not worth the keystrokes to copy/paste.

Learners with Disabilities Policy
The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services (CASS). Contact the Center for Accommodations and Support Services at 915-747-
COVID-19 Policy
Please stay home if you (1) have been diagnosed with COVID-19, or (2) are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, and alternative instruction will be provided. The Student Health Center is equipped to provide COVID 19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org

Learner Resources

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<tr>
<th>Resource</th>
<th>Contact Information</th>
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<tbody>
<tr>
<td>Emergency Aid for UTEP Students: The Dean of Students Office has several emergency aid programs for students. Please visit their website to see a full list.</td>
<td><a href="https://www.utep.edu/student-affairs/dean-of-students-office/emergencyaid/">https://www.utep.edu/student-affairs/dean-of-students-office/emergencyaid/</a> <a href="mailto:DOS@utep.edu">DOS@utep.edu</a> 915-747-5648</td>
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<tr>
<td>Other resources for UTEP students</td>
<td><a href="https://www.utep.edu/student-affairs/resources/index.html">https://www.utep.edu/student-affairs/resources/index.html</a></td>
</tr>
<tr>
<td>Emergency Grants and Assistance for UTEP students</td>
<td><a href="https://www.utep.edu/utepcares/apply/">https://www.utep.edu/utepcares/apply/</a> 877-747-8983</td>
</tr>
<tr>
<td>UTEP Food Pantry</td>
<td>Memorial Gym, Room 105 915-747-7452 <a href="mailto:foodpantry@utep.edu">foodpantry@utep.edu</a></td>
</tr>
<tr>
<td>Kelly Center for Hunger Relief</td>
<td>915 N. Florence St. El Paso, TX 79902 915-261-7499 <a href="https://facebook.com/915kmfp">https://facebook.com/915kmfp</a></td>
</tr>
<tr>
<td>UTEP Student Support Services for Challenges with Finances (FHAR)</td>
<td>Academic Advising Center 915-747-5290</td>
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<tr>
<td>UTEP Counseling and Psychological Services</td>
<td>Union West, Room 202 915-747-5302 After Hours Crisis Line: 915-747-5302 <a href="http://sa.utep.edu/counsel">http://sa.utep.edu/counsel</a></td>
</tr>
<tr>
<td>UTEP Student Health Center</td>
<td>915-747-5624 <a href="https://www.utep.edu/chs/shc">https://www.utep.edu/chs/shc</a></td>
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<tr>
<td>Campus Advocacy, Resources, and Education (CARE): advocacy and counseling for students who are victims of a crime or secondary victims. These services may be extended to the students’ support system. A victim of a</td>
<td>1101 N. Campbell Building, Room 103 915-747-7452 <a href="mailto:care@utep.edu">care@utep.edu</a> <a href="https://www.utep.edu/care">https://www.utep.edu/care</a></td>
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</table>
crime is a person who has suffered physical, sexual, financial, and/or emotional harm because of the commission of a crime.

<table>
<thead>
<tr>
<th>Center Against Sexual and Family Violence</th>
<th>580 Giles Road El Paso TX 915-593-7300 24/7 Crisis Hope Line: 1-800-727-0511</th>
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<tr>
<td>UTEP Writing Center</td>
<td>Library Building, Room 227 915-747-5112 <a href="http://uwc.utep.edu">http://uwc.utep.edu</a></td>
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If you would like other resources or assistance accessing any of these resources, please contact Dr. Day.

**Syllabus Change Policy**
This syllabus is a guide for the course and is subject to change without advance notice at the discretion of Drs. Day and Narayan.