A. COURSE INFORMATION

Course Number/Section: CHEM 4407.001  
Class Meeting Time: MTWR 10:00 AM – 11:55 AM  
Class Location: TBA  
Course Website: https://bb9.tamucc.edu

B. INSTRUCTOR INFORMATION

Instructor: Shreyashi Ganguly  
Office Location: CS 246  
Telephone: 361 825 4060  
e-mail: shreyashi.ganguly@tamucc.edu  
Office Hours: MW: 10 AM - 12 PM, F: 10 AM - 11 AM

C. COURSE DESCRIPTION

Chemistry 4407 provides a detailed perspective to Inorganic chemistry. Specifically the detailed descriptions of metals, their properties as well as applications. The prerequisite is CHEM 1411 and CHEM 1412. This course includes lectures and scientific paper reading and writing capabilities.

D. PREREQUISITIES FOR THE COURSE

CHEM 1411 and CHEM 1412

E. REQUIRED TEXTBOOK(S) AND SUPPLIES

Textbook: No specific textbook is required for the course. All the materials will be posted on Blackboard. But there are some recommended books that you can follow.


F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

1. To introduce the student to innovative world of specific metals in the periodic table.  
2. To provide them with the capabilities of presentations and reading and writing scientific journals.  
3. To instill the ability of searching through scientific database for research articles and journals.  
4. To develop a sense of research and analytical capability in the students.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

The course is given by face-to-face lectures augmented with PowerPoint slides. Sample problems are presented frequently. Students will be called upon to answer questions. Lectures will be used to present, clarify and practice important topics and skills. You might have to form learning community of 2-3 students and will have to work with students in that group during lecture, especially during paper reading. Attending lecture, participating and making your own set of notes as soon as possible.
after class is key to your success in the class. You are responsible for learning all material presented in the lectures and in assigned portions of the text. Questions can be addressed during lecture. There is also a LABORATORY associated with the course.

H. MAJOR COURSE REQUIREMENTS AND GRADING

The overall course grade will consist of regular quizzes, giving presentations, writing research papers, and dissecting research paper.

Examinations

The examinations will consist of quizzes, writing abstracts, research papers, giving presentation and group discussions. Tentative dates will be announced in class.

You are required to take examinations at the scheduled times. There are no makeup exams without a valid university excuse. If you miss an exam for any reason, you will receive a grade of zero for that exam. If you know in advance that you will be missing an exam please notify your instructor so the proper arrangements can be made.

The final exam will constitute of writing a research paper.

Lecture Evaluation:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Paper Writing</td>
<td>25 %</td>
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<tr>
<td>In Class Quizzes</td>
<td>25 %</td>
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<tr>
<td>Final Exam</td>
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<td>Laboratory</td>
<td>25 %</td>
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Final letter grading for the course will be as follows: A = 90% + ; B = 80% + ; C = 70% + ; D = 60% + ; F = < 60%. I will announce in class if I give an assignment for bonus points.

I. COURSE CONTENT/SCHEDULE

The schedule below is a preliminary outline or tentative schedule of the semester. It is your responsibility to keep up with the changes to this schedule. The reading and problems assignments should be completed before the due dates. Failure to stay current on reading and problem assignments will greatly affect your ability to keep up during lecture and will affect your grade in this course.

- 2 -
### Lecture Material (By Chapter)

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Details</th>
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<tr>
<td>Ethics in research</td>
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<td>The electronic structure of atom: a review</td>
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<td>Covalent bonding and molecular spectroscopy</td>
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<td>Metallic bonding and alloys</td>
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<td>Ionic bonding and solid state structures</td>
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<td>Groups 1, 2, 13, 14, 15, 16, 17 and 18 elements</td>
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<td>Transition metal complexes and Coordination Chemistry</td>
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<td>Bioinorganic Chemistry</td>
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<td>Instrumentation</td>
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<td>Lanthanides and Actinides</td>
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<td>Nanotechnology</td>
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<td>Applications of Nanotechnology</td>
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### J. COURSE POLICIES

#### Attendance/Tardiness

The student is expected to be on time and attend every class. It is the responsibility of the student to obtain missed information from a classmate. Missed information includes not only lecture notes, but also any possible information regarding syllabus changes. The student is expected to arrive on time prepared to take notes or take exam with appropriate supplies.

#### Late Work and Make-Up Exams

There will be no make-up exams for this class. Certain university-related circumstances may warrant a makeup exam with prior notification, documentation, and arrangements. Do not show up late to an exam: **NO student will be admitted to the exam after the first exam-taker has left.**

#### Extra Credit

The grade is determined as per “Section H” above.

#### Cell Phone Use
Before you enter the lecture hall turn OFF your cell phone. Cell phones are not permitted in class, not even as a calculator. Electronic interruptions will NOT be tolerated!

**Laptop Use**

Laptops are to be used only for lecture materials. Use of laptops for non-class items will not be permitted.

**Electronic Devices During Exams**

Any use of an electronic device (Cell Phone, MP3 player, CD player, computer, etc.) during an exam is strictly prohibited. Any use of such a device will be considered an attempt to cheat on the exam and will result in a 0 on the exam although more severe actions may be considered. Calculators may be allowed on exams when needed, but only for mathematical operations. The use of programmable calculators to store or retrieve information during an exam will be considered an attempt to cheat on the exam. Also, if a calculator is discovered to have saved programs or information that could be used as an unfair advantage on the exam, this will be considered an attempt to cheat on the exam. Programs or operators that aid in mathematical operations such as a quadratic equation calculator may be used.

**Food in Class**

Generally, food in class is not permitted during class. It is permissible to bring appropriate snacks during the 2 1/2 hour final exam. Coffee, sodas, energy drinks are permissible.

**Missed Exam**

See Late Work and Make-Up Exams above.

**Participation**

Students are expected to attend all classes and be prepared to ask and/or answer questions. However, there are not penalties for missing a class but every week one day there will be a pop up quiz.

**Student Responsibility:** It is the student’s responsibility to read and be aware of the contents of this syllabus and the course website on Blackboard. Announcements and changes are communicated in the classroom, Blackboard, and/or emails.

**Tutoring and Test-Taking Strategies**

To be successful in this course, and most others, you must develop good note-taking skills, organization skills, study habits, and test-taking strategies from the very beginning. Your instructor, seminar leaders and TA’s are always available for help, but don’t wait until it’s too late! It is important that you are aware that the Center for Academic Student Achievement provides free tutoring, test-taking strategies, and extra help. Take advantage of this service! Should you have test anxiety, stress problems, or need help with study skills, the University Counseling Center (Driftwood Building: 825-2703) provides a free service.

*(NOTE: I reserve the right to alter the type and number of testing/lectures, grand total points, and course materials, as required during the semester)*

**K. COLLEGE AND UNIVERSITIY POLICIES**

- Academic Integrity (University)
It is expected that university students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior.

See Full University Policy at http://catalog.tamucc.edu/content.php?catoid=10&navoid=313#Academic_Integrity

❑ Classroom/Professional Behavior

Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

❑ Statement of Civility

Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state, and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

❑ Deadline for Dropping a Course with a Grade of W (University)

The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must be submitted. No student is eligible to receive a W without completing the official drop process by the deadline. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

❑ Grade Appeals (College of Science and Engineering)

As stated in University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is required to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.c0.03_student_grade_appeals.pdf. For assistance and/or guidance in the grade appeal process, students may contact
the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- Disability Services -

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services Office for assistance at (361) 825-5816.

http://disabilityservices.tamucc.edu/

- Statement of Academic Continuity -

In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University-Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

- Academic Advising -

The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

- Civil Rights Reporting Info -

Texas A&M University-Corpus Christi is committed to fostering a culture of caring and respect that is free from discrimination, relationship violence and sexual misconduct, and ensuring that all affected students have access to services. For information on reporting Civil Rights complaints, options and support resources (including pregnancy support accommodations) or university policies and procedures, please contact the University Title IX Coordinator, Sam Ramirez (Samuel.ramirez@tamucc.edu) or Deputy Title IX Coordinator, Rosie Ruiz (Rosie.Ruiz@tamucc.edu) x5826, or visit website at Title IX/Sexual Assault/Pregnancy.

- Limits to confidentiality -
Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, are not able to maintain confidentiality when it conflicts with their responsibility to report alleged or suspected civil rights discrimination that is observed by or made known to an employee in the course and scope of their employment. As the instructor, I must report allegations of civil rights discrimination, including sexual assault, relationship violence, stalking, or sexual harassment to the Title IX Coordinator if you share it with me. These reports will trigger contact with you from the Civil Rights/Title IX Compliance office who will inform you of your options and resources regarding the incident that you have shared. If you would like to talk about these incidents in a confidential setting, you are encouraged to make an appointment with counselors in the University Counseling Center.

☐ General Disclaimer
I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.

In choosing to take this course, you are agreeing to abide by the course rules, regulations, and standards. This includes agreeing to be respectful to your instructors and fellow students. Conduct that is disruptive or disrespectful will not be tolerated and is grounds for dismissal from the class. Should you have concerns or questions, you are to discuss them with the instructor as soon as possible. However, you are bound by these rules, regulations, and standards from the first day of the class throughout the duration of the course.