

Chem 397.01x: Foundations of Chem Analysis

Summer 2023

Please, click on the following link to access A&M-Commerce Covid 19 Information,
<https://new.tamuc.edu/coronavirus/>

Instructor Information

Dr. Ben Jang
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Office: Science 335
Phone: 903-886-5383
Online Office Hours: TW 3-4:30pm via Zoom or D2L

Course Information and Course Materials

COURSE DESCRIPTION: Research Experiences for Undergraduates, 1 semester hour (combination of lectures, seminars, field trips, workshops, labs, etc.)

CLASS TIME AND LOCATION: Lecture/Seminar: F 1:00pm-3:00pm Sci #356
Lab: Mon-Fri assigned by research group adviser

GOALS OF THE COURSE: Introduce the students into undergraduate research, including basic skills in literature search, computer software, report preparation, presentation preparation and presentation delivery. Students are to become an expert in setting up and operation of specific apparatus and/or instrumentation used by the research groups which they are assigned to. During the course, the students are to present their research progress and summarize their research finding in writing following the format required by each group. Presentation and writing workshops and field trips are to enhance student's skill, knowledge and interest in undergraduate research in chemistry. In addition, research ethics training will be provided to students to be a responsible individual for his action inside and outside of the laboratory.

COURSE REQUIREMENTS, ASSIGNMENTS AND GRADING:

Grading Procedure:

Presentations: 30%
Reports: 40%
Attendance: 30%

A: >85.0; B: 75.0 ~ 84.9; C: 65.0 ~ 74.9; D: 55.0 ~64.9; F: <55.0

Student Learning Outcomes:

At the end of this course students should demonstrate the skills and knowledge in the following areas:

1. Effective use of various literature search methods and database.
2. Principles of academic integrity and intellectual ownership.
3. Comprehensive understanding of safety issues related to the selected project.
4. Training on extensive procedures for various experiments
5. Critical analysis of literature and data.
6. Learn to effectively and appropriately communicate scientific findings to the audience
7. Learn and apply writing skills to prepare scientific reports
8. Applying scientific methods to solving education-related problems.
9. Comprehensive understanding of various instrumentations related to the research project.

TENTATIVE SCHEDULE

WK 1-3: Literature Review & project training

WK 3-9 Project work, data analysis, summary of research and periodic reports submission;

Instrumentation training could include NMR, MS, HPLC, FT-IR, UV, TGA, DSC, Chemisorption, surface area/pore size distribution, etc.

WK 10: Final Report

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

Interaction with Instructor Statement

Communication for course correspondence will be via TAMUC email. It is expected that all responses should be within 48 hours.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

[Undergraduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

[Graduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

Students with Disabilities-- ADA Statement

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 have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.