



CHEM 2289.001 Academic Co-op in Chemistry

Course Syllabus: Fall 2021

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

Instructor: Drew L. Murphy, PhD – he/him

Office: MS 115

Phone: 903.434.8214

Email: dmurphy@ntcc.edu

	Monday	Tuesday	Wednesday	Thursday	Friday
on Campus	930-1050	930-1220	930-1050	930-1220	None
via Zoom	by appointment only				

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities. Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description:

- An instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual students will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena.
- *Prerequisite(s):* CHEM 1412 and instructor permission

Course Structure and Overview:

- Laboratory Sessions:
 - Students will work in the chemistry laboratory on a research project for a minimum of three hours per week, every week.
- **NOTE:** Although not required or mandated by the college, dual-layer cloth face coverings are **highly recommended** during this current, ongoing pandemic; especially as the format of this course makes social distancing difficult.

Required Instructional Materials:

- Lecture Textbook
 - *none*
- Lab Supplies
 - Lab Safety Personal Protective Equipment (PPE)
 - Approved safety glasses are available in the college store, and many safety glasses and safety goggles are also available from online retailers. Students who wear corrective-vision glasses must have elastic-strap safety goggles that cover the entire glasses and seal against the forehead. **Always check with your instructor before purchasing eye protection from somewhere other than The NTCC College Store.**
 - **Beginning Monday, September 13, students arriving to lab without proper safety glasses or goggles will not be allowed to work in the lab and will receive a grade of zero for that day.** Before that date, safety glasses/goggles may be rented from the instructor for the cost of five (5) points deducted from the behavior, safety, and teamwork (BST) grade.
- Scientific Calculator

A scientific calculator is required for this course. A model TI-36x Pro or TI-30Xa is suggested, but many models will work; check with your instructor. **You will NOT be allowed to use a graphing calculator, programmable calculator, or cell-phone calculator during any exam in this course.**

Minimum Technology Requirements:

- Scientific Calculator - TI-36x Pro and TI-30Xa are recommended (Graphing calculators are not allowed on exams)
- Wireless Internet capable laptop computer or tablet (Chromebooks are not recommended)

Required Computer Literacy Skills:

- Web browsing skills
- Ability to use Blackboard for access to course information
- Competent and professional emailing skills
- Functional use of MS Word and Excel
- Video conferencing capability using Zoom through computer or mobile phone.

Communications:

- The major communication pathway between instructors and students in this course is face-to-face during laboratory sessions and during office hours. Students are expected to ask questions and participate in discussions during laboratory sessions.
- NTCC email is the official form of communication used by the college. Email communications from non-NTCC email addresses will not be answered.
- Course announcements that occur outside of lab sessions will be announced via Blackboard's announcement feature. These will be cc'd to students via NTCC email.
- Students are expected to check Blackboard and their NTCC email accounts regularly.
- All grading policies and due dates for online homework assignments are listed in the online homework system and the course Blackboard page.

Evaluation/Grading Policy:

- Course Grade Breakdown
 - Participation & Research Progress 100%
- Grading Scale
 - A = 100-90%
 - B = 89-80%
 - C = 79-70%
 - D = 69-60%
 - F = 59-0%

Final course grades are rounded to the nearest whole number percent, and letter grades assigned using the grading scale.

Exams:

- none

Institutional/Course Policy:

- Students are expected to be working in the lab for a minimum of three hours per week.
- Students will schedule their lab time with the professor at the beginning of the semester to ensure regular laboratory work. Additional times may be added or times may be adjusted as needed.
- Attendance
 - Attendance is mandatory for this course.
 - Attendance points may be lost for attitude, teamwork, and/or other interpersonal issues.
- Electronic Devices Policy
 - Use of cell phones is prohibited during lab time. Students using phones for unapproved purposes during lab will be asked to leave lab and will earn a grade of zero on material for that lab period.
 - Wearing headphones in the lab is not allowed. Use of listening devices will earn the student a zero on work for that class session.
- Laboratory Experiments
 - Continuous work throughout the semester on one of our research projects.
- Laboratory Conduct and Attire
 - Students are expected to adhere to the guidelines set forth in the "Commitment to Laboratory Safety Pledge" and in the safety video.
 - Students must wear long pants covering their ankles—**leggings are unacceptable**, closed shoes (no exposed skin or sock), and shirts that cover their shoulders.
 - Approved safety glasses/goggles are to be worn at all times in the lab. Students who wear corrective-vision glasses

- must have elastic-strap safety goggles that cover the entire glasses and seal against the forehead.
- Long hair should be pulled back. Failure to follow laboratory safety protocols could result in injury to yourself or others and will result in reduction of your laboratory grade.
- Students not dressed appropriately for lab will be asked to leave and will earn a grade of zero on that experiment.
- Withdrawal Date (Drop Date)
 - **Tuesday, November 16** is the last day to withdraw from the course with a grade of “W”. If you stop attending class and fail to officially withdraw, expect to earn a grade of “F” in the course.
- Student Athletes
 - It is the student athlete’s responsibility to communicate with the instructor. If the athlete will be absent from class or lab, it is the student’s responsibility to inform the instructor with as much advance notice as is logistically possible. Arrangements can be made for missed assignments, quizzes, experiments, exams, etc. with advance notice from the student. If no notice is provided from the student, missed assignments, quizzes, experiments, exams, etc. will not be excused and will earn grades of zero.

Tentative Course Timeline:

- The instructor reserves the right to make adjustments to this timeline at any point in the term.
- Students are expected to work in the lab a minimum of three hours each week working towards their research goals and recording data and observations in lab notebooks.

Student Responsibilities/Expectations:

- Students are expected to work in the lab a minimum of three hours each week working towards their research goals and recording data and observations in lab notebooks. Like all colleges, Northeast Texas Community College strives to be a “community of scholars.” Please remember that you and all of the students in this class are pursuing very important goals in your lives. As human beings and as scholars, I expect every student to be courteous and considerate toward other students throughout the lecture and laboratory portions of this course.

College Student Learning Outcomes:

- Critical Thinking Skills
 - CT1. Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.
- Communication Skills
 - CS1. Students will effectively develop, interpret and express ideas through written communication.
- Empirical and Quantitative Skills
 - EQS1. Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form.
 - EQS2. Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.
- Team Work
 - TW2. Students will work with others to support and accomplish a shared goal.

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements:

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to: online through the BlackBoard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC’s website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, BlackBoard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the BlackBoard course site.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.