

NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

**COURSE SYLLABUS**

**Course Title:** General Chemistry I lab

**Course #:** CHE\* 121

**Course Description:** Laboratory period to accompany CHE\* 121. Students perform experiments to demonstrate the concepts presented in lecture.

**Pre-requisite/Co-requisite:** Must be taken concurrently with CHE\* 121 lecture

**Goals:** To provide students with a hands on learning experience designed to enhance learning. Experiments include projects such as working with model kits and performing experiments to demonstrate density, specific heat and identification of unknown substances. To develop basic laboratory skills including quantitative measurement, use of basic chemistry equipment such as balances, Bunsen burners, burettes, and other specialized glassware.

**Outcomes:** Upon successful completion of this course, the student should be able to:

- Calculate the density of substances experimentally and use density to solve quantitative problems.
- Be able to experimentally identify empirical and molecular formulas of unknown compounds including hydrates
- Calculate the molar mass of substances experimentally and use ideal gas law to solve quantitative problems
- Be able to build and understand the geometry of molecular models
- Calculate the specific heat of substances and use specific heat to solve quantitative problems
- Understand the basics of the electromagnetic spectrum
- Be able to calculate the wavelength, frequency and energy of light.

**Competencies:**

*Scientific Reasoning:* Upon the completion of this course, students should be able to:

- Explain the methods of scientific inquiry that lead to the acquisition of knowledge. Such methods include observations, testable hypotheses, logical inferences, experimental design, data acquisition, interpretation, and reproducible outcomes.
- Apply scientific methods to investigate real-world phenomena, and routine and novel problems. This includes data acquisition and evaluation, and prediction.
- Represent scientific data symbolically, graphically, numerically, and verbally.
- Interpret scientific information and draw logical references from representations such as formulas, equations, graphs, tables, and schematics.
- Evaluate the results obtained from scientific methods for accuracy and/or reasonableness

*Scientific Knowledge:* Upon the completion of this course, students should be able to:

- Communicate using appropriate scientific terminology.
- Use representations and models to communicate scientific knowledge and solve scientific problems.
- Plan and implement data collection strategies appropriate to a particular scientific question.
- Articulate the reasons that scientific explanations and theories are refined or replaced.
- Evaluate the quality of scientific information on the basis of its source and the methods used to generate it.

## **College Policies**

**Plagiarism:** Plagiarism and Academic Dishonesty are not tolerated at Northwestern Connecticut Community College. Violators of this policy will be subject to sanctions ranging from failure of the assignment (receiving a zero), failing the course, being removed/expelled from the program and/or the College. Please refer to your “Student Handbook” under “Policy on Student Rights,” the Section entitled “Student Discipline,” or the College catalog for additional information.

**Americans with Disabilities Act (ADA):** The College will make reasonable accommodations for persons with documented learning, physical, or psychiatric disabilities. Students should notify Dr. Christine Woodcock, the Counselor for Students with Disabilities. She is located at Green Woods Hall, in the Center for Student Development. Her phone number is 860-738-6318 and her email is [cwoodcock@nwcc.edu](mailto:cwoodcock@nwcc.edu).

**School Cancellations:** If snowy or icy driving conditions cause the postponement or cancellation of classes, announcements will be made on local radio and television stations and posted on the College’s website at [www.nwcc.edu](http://www.nwcc.edu). Students may also call the College directly at **(860) 738-6464** to hear a recorded message concerning any inclement weather closings. Students are urged to exercise their own judgment if road conditions in their localities are hazardous.

**Use of Electronic Devices:** Some course content as presented in Blackboard Learn is not fully supported on mobile devices at this time. While mobile devices provide convenient access to check in and read information about your courses, they should not be used to perform work such as taking tests, quizzes, completing assignments, or submitting substantive discussion posts.

**Sexual Assault and Intimate Partner Violence Resource Team:** NCCC is committed to creating a community that is safe and supportive of people of all gender and sexual identities. This pertains to the entire campus community, whether on ground or virtual, students, faculty, or staff.

Sexual assault and intimate partner violence is an affront to our national conscience, and one we cannot ignore. It is our hope that no one within our campus community will become a victim of these crimes. However, if it occurs, NCCC has created the SART Team - Sexual Assault and Intimate Partner Violence Resource Team - to meet the victim’s needs.

SART is a campus and community based team that is fully trained to provide trauma-informed compassionate service and referrals for comprehensive care. The team works in partnership with The Susan B. Anthony Project to extend services 24 hours a day, 7 days a week throughout the year.

### The NCCC team members are:

Ruth Gonzalez, Ph.D.	860-738-6315	Green Woods Hall Room 207
Susan Berg	860-738-6342	Green Woods Hall Room 223
Kathleen Chapman	860-738-6344	Green Woods Hall Room 110
Michael Emanuel	860-738-6389	Founders Hall Annex Room 308
Seth Kershner	860-738-6481	Library
Jane O’Grady	860-738-6393	Founders Hall Annex Room 212
Robin Orlomoski	860-738-6416	Business Office Room 201
Patricia Bouffard, Ex-Officio	860-738-6319	Founders Hall Room 103
Savannah Schmitt		Student Representative

At NCCC we care about our students, staff and faculty and their well-being. It is our intention to facilitate the resources needed to help achieve both physical and emotional health.