



Exploring Chemistry 1

CHEM 051

Instructor Info —

- David Punihaole, PhD
- U By Appt.
- Innovation Hall E352
- @ David.Punihaole@uvm.edu

Course Info —

- Co-req: CHEM 047
- Thurs
- U 08:30-12:30 or 13:15 - 17:15
- DISCOVERY W211 or W213

TA Info —

- Lauren Aheran
- U By Appt.
- By Appt.
- @ Lauren.Aheran@uvm.edu
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- U
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Grading Scheme

Your course grade will be determined by your point total at the end of the semester. There are 100 possible points that can be earned, according to the following distribution categories:

20%	Attendance
30%	Lab Notebook
10%	Participation
40%	Lab Reflections

Grades will follow the standard scale: A = 93-100%; A- = 90 - 92%; B+ = 87 - 89%; B = 83 - 86%; B- = 80 - 82%; C+ = 77 - 79%; C = 73 - 76%; C- = 70 - 72%; D+ = 67 - 69%; D = 63 - 66%; D- = 60 - 62%; F = < 60%. Grades will be curved at the discretion of the professor.

Please note:

- **Attendance:** Since this is a laboratory course, you are expected to be in lab each week for each experiment/exercise. There are no makeup lab sessions. Please note: it is not possible to pass this course with more than two absences (excused or unexcused).
- **Lab Notebook:** You will be expected to keep a notebook documenting all of your preparation for and work in the lab. Your lab notebook "carbonless copies" will be collected after each lab class session and assessed relative to the expectations and good laboratory practice presented to you in class. While many of our labs will not require any advance preparation, for those that do require it, lack of evidence of preparedness for a laboratory experiment/exercise could result in your expulsion from the lab for the day, if it is determined that you are not prepared for working safely in the laboratory.
- **Participation:** We will rely heavily on working collaboratively in this course and your behavior in the laboratory will be assessed relative to your efforts to support the learning objectives of the class as a whole. No single person in this course will be able to perform all of the experimental measurements necessary to test the hypotheses posed and to answer the questions raised – collaboration and sharing of data and observations are essential to the success of the entire class.
- **Lab Reflections:** While there will not be formal lab reports you will need to write for this course, after each lab experience there will be some kind of prompt to which you will be expected to think about and turn in a written reflection or (very brief) report prior to the next lab period. Typically, these will be no more than two pages and will be assigned by Saturday of each week and due by the start of lab each week.

Course Policies

General Attendance, Participation Policies, and Expectations

This course is worth 1-credit. As a result, you are expected to commit, on average, about 3 hours per week to work assignments outside of the in-class period. Attendance/participation in this course is expected for you to succeed. The [UVM attendance policy](#) outlines expectations for attendance. Students are expected to complete homework and read class notes (which will be posted prior to lecture) before class. Science has never and is not done in isolation. A major part of this course will depend upon class discussion, working in teams, or participating in other group activities. Students are expected to be teamplayers and to maintain a respectful learning environment so that everyone is heard. Racist, sexist, or any other bigoted language will not be tolerated and are grounds for being asked to leave the class.

Excused Absence Policies

- **Religious Holidays:** Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time frame. <https://www.uvm.edu/registrar/religious-holidays>
- **Inter-collegiate Athletics:** Members of UVM varsity and junior varsity teams are responsible for documenting in writing any conflicts between their planned athletic schedule and the class schedule by the end of the 2nd full week of classes. You will be permitted to make up work within a mutually agreed-upon time frame.
- **Medical and Emergency Absences:** Absences due to sickness, as well as medical and family emergencies, should be brought to my attention as soon as possible. You will be permitted to make up work within a mutually agreed-upon time frame.
- **Other Absences:** Absences due to extracurricular or other activities not specified above should be brought to my attention as soon as possible so that we can work out an arrangement to make up work.

COVID-specific Policies

The University of Vermont reserves the right to make changes in the course offerings (<http://catalogue.uvm.edu/>), mode of delivery, degree requirements, charges, regulations, and procedures contained herein as educational, financial, and health, safety, and welfare considerations require, or as necessary to be compliant with governmental, accreditation, or public health directives.

Due to COVID-19 concerns, students are expected to maintain a safe atmosphere when attending class. The **Green and Gold Promise** clearly articulates the expectations that UVM has for students, faculty, and staff to remain compliant with all COVID-19 recommendations from the federal CDC, the State of Vermont, and the City of Burlington. This includes following all rules regarding facial coverings and social distancing when attending class. If you do not follow these guidelines, I will ask you to leave the class. If you forget your mask, you cannot enter the class and should go back and retrieve your mask. The **Code of Student Conduct** outlines policies related to violations of the Green and Gold Promise. Sanctions for violations include fines, educational sanctions, parent notification, probation, and suspension.

You may need to isolate or quarantine this semester due to COVID-19 concerns. If this is the case, Student Health Services will inform the Dean's office. I will then contact the dean's office for confirmation that a student is in quarantine or isolation. Students, especially those who are asymptomatic in quarantine, will be expected to continue their academic work. I will work

C.A.R.E. If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <https://www.uvm.edu/studentaffairs>

Alcohol and Cannabis Statement

As a faculty member, I want you to get the most you can out of this course. You play a crucial role in your education and in your readiness to learn and fully engage with the course material. It is important to note that alcohol and cannabis have no place in an academic environment. They can seriously impair your ability to learn and retain information not only in the moment you may be using, but up to 48 hours or more afterwards. In addition, alcohol and cannabis can:

- Cause issues with attention, memory and concentration
- Negatively impact the quality of how information is processed and ultimately stored
- Affect sleep patterns, which interferes with long-term memory formation

Mosaic Center for Students of Color

The Mosaic Center for Students of Color (MCSC) Vision is to create a diverse and rich community of empowered, engaged, and enthusiastic students of color at UVM. We fully support the holistic development of self-identified students of color so that they can obtain their goals for academic achievement, personal growth, identity formation, and cultural development.

<https://www.uvm.edu/mcsc>

Women & Gender Equity Center

The UVM Women & Gender Equity Center cultivates joyful community while advancing gender equity across identities. We envision a brave, diverse, and equitable learning environment for all members of the UVM community. We provide advocacy services for those in our community who have experienced sexual or intimate partner violence, and strive to provide programming, education, and events that ask our community to explore the intersections of their gender and other identities.

<https://www.uvm.edu/wagecenter>

Students are encourage to attend class, do homework, come to office hours, work with peers, and ask questions to help them

Course Schedule (Subject to Change)

Sept 1	Week 1	Intro/Safety/Experiment Design
Sept 8	Week 2	ACS Exam/Class Discussion
Sept 15	Week 3	Nitrocellulose Paper Reaction Chemistry
Sept 22	Week 4	Seminar Talk, Class Discussion
Sept 29	Week 5	ORGO EXAM, NO CHEM 051 LAB
Oct 6	Week 6	Atomic Structure
Oct 13	Week 7	Blue Bottle Chemical Clock
Oct 20	Week 8	Penny-gold Experiment
Oct 27	Week 9	ORGO EXAM, NO CHEM 051 LAB
Nov 3	Week 10	Seminar Talk, Class Discussion
Nov 10	Week 11	Synthesis and Spectroscopy of Metal-Ligand Complexes
Nov 17	Week 12	Effects of pH on electronic structure, Lab Check-out
Nov 24	Week 13	Thanksgiving Recess -NO CHEM 051 LAB
Dec 1	Week 14	ORGO EXAM, NO CHEM 051 LAB
Dec 8	Week 15	NO CHEM 051 LAB
