

WORLD OF CHEMISTRY LABORATORY
CHEM 110 Spring 2023 21:160:110

Course Instructor: Dr. Karen Chaffee **Email:** kchaffee@newark.rutgers.edu
Office Room 310 Olson Hall (Tel. 973-353-5460 but please email rather than call)
Lab Number 001: basement of Olson lab **Credits:** 2 h 50 min laboratory, 1 credit
Tentative Office hours in 310 Olson: (This can change based on student's needs)
Thursday 11:30-12:50 Friday 11:00 - 12:30

COURSE DESCRIPTION:

A basic chemistry laboratory course designed for non-science students. Students completing this course will work safely in a chemistry laboratory and become skilled at working with a variety of equipment, learn about what chemists do, use quantitative and creative thinking and use scientific modes of inquiry.

REQUIRED MATERIAL

We will supply Goggles and simple calculators. We will supply printouts of labs. There is no book. If you want nicer goggles or calculators, you may bring them.

COURSE POLICIES

1. **Promptness:** *Laboratory session will begin and end promptly as scheduled;* students will not be allowed to work overtime or during off-hours. If a student arrives very late to lab, they may be asked to come a different day, if the instructor feels they cannot do the lab in the time left.
2. **Attendance:** Laboratory attendance is Mandatory. Students are expected to attend laboratory sessions. Students are responsible for signing in if they are late.
3. **Make-up Labs:** We have a make-up lab if you miss one lab. Anyone may take it. If you miss more than one lab, you may need to work with me. For additional missed labs (after the first one) you need a valid excuse. Please ask me! Valid excuses include a medical reason, a religious holiday, or valid school activities. If you want to do the lab in another section, you are responsible for contacting me in advance with your schedule to find an open spot in other lab sections.
4. **Cell Phones:** Don't use cell phones for entertainment purposes. They are useful for taking pictures.
5. **Partners**
 - Normally no more than two people may work together.
 - You are expected to work at your workstation with your equipment only.
 - You are expected to make your own measurements and observations.

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- Do not bring in another person's experiment or expected results. Enjoy the excitement of discovery.
6. In doing any experiment:
- First thing, put your name and date on your data sheet.
 - Record all data directly on your data sheet in **ink**. Do not use pencil or "erasable" ink!
 - Your DATA SHEET (like a hospital chart or a research notebook) is a record we can use to help you.
 - Do not use scrap paper or write data on the palm of your hand! Write directly on your DATA SHEET. Otherwise, your information can get lost or smudged and give rise to errors in recopying and we won't be able to help you as well.
 - Do not erase or whiteout on the DATA SHEET. To change data, cross out the erroneous data and replace it with the new data! Do not write over the old data. Write the corrected data next to or above the crossed out data. The old data should still be readable! You may indicate why you changed the data if you want.
 - We can't help you if we don't know exactly what you did--please save all your data.
7. DATA SHEETS and products are to be turned in before you leave the laboratory if it is that type of lab. If for any reason, you cannot turn in your results before you leave the lab, have your instructor note that on your DATA SHEET before you leave.
8. **Grading:** Your grade will come from experiments, both write-up and in-lab (which includes attendance and arriving on time) plus 3 quizzes lasting approximately 20-30 minutes. Typically, you can do well if you attend and try your best. However, if you want a top grade, you must also do reasonably well on quizzes. Most people do well and we work to make the class successful for you as long as you attend and try.

	Points
Experiments	60 x 11 (660)
Safety & introduction	40
BIG QUIZ I, II and III	100 x 3
Total	1000

9. **Weather Emergencies:** Check the Rutgers website (www.rutgers.edu) to confirm if classes are cancelled due to weather emergencies in case of bad weather

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Tentative schedule

WeekNo.	Experiment	Tuesday section	Thursday Section	Friday section
1	Safety/Syllabus/ Check-In	1/17	1/18	1/20
2	Calibrate and Physical Properties	1/24	1/26	1/27
3	Graphing: concentration and density	1/31	2/2	2/3
4	THE SPECTROPHOTOMETRIC ANALYSIS OF ASPIRIN.	2/7	2/9	2/10
5	Spinach, Separations and Big Quiz 1	2/21	2/16	2/17
6	Extraction of Caffeine	2/14	2/23	2/24
7	Distillation	2/28	3/2	3/3
8	Vinegar Analysis	3/7	3/9	3/10
	Spring Break	3/13-3/17		
9	Polymers Big Quiz 2	3/21	3/30	3/24
10	Aspirin Synthesis	3/28	3/23	3/31
11	Preparation of Soap	4/4	4/6	4/7
12	Isolation of Lactose and Casein from Milk	4/11	4/13	4/14
13	Make up week	4/18	4/20	4/21
14	Quiz, finish lab 12 and Checkout and Big Quiz 3	4/25	4/27	4/28

* This can be changed if we have unanticipated circumstance

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❑ **Absences:** Per the University's Course Attendance policy (10.2.7), students are responsible for communicating with their instructors regarding absences. The Division of Student Affairs is available to verify extended absences: (973) 353-5063 or DeanofStudents@newark.rutgers.edu.

Accommodation and Support Statement

Academic Integrity

As an academic community dedicated to the creation, dissemination, and application of knowledge, Rutgers University is committed to fostering an intellectual and ethical environment based on the principles of academic integrity. Academic integrity is essential to the success of the University's educational and research missions, and violations of academic integrity constitute serious offenses against the entire academic community. The entire Academic Integrity Policy can be found here:

<http://academicintegrity.rutgers.edu/academic-integrity-policy/>

Your health and well-being matter, and Rutgers has put in place a number of resources that are intended to help students through the challenges that might emerge during these times. Information on many of these resources appears below. Please let us know immediately if you are experiencing circumstances that are negatively impacting your academic performance. We also strongly encourage you to contact your academic advisor.

Accommodation and Support

Rutgers University Newark (RU-N) is committed to the creation of an inclusive and safe learning environment for all students. RU-N has identified the following resources to further the mission of access and support:

- *Absences:* All students are responsible for timely notification of their instructor regarding any expected absences. The Division of Student Affairs can provide assistance for absences related to religious observance, emergency or unavoidable conflict (illness, personal or family emergency, etc.) Students should refer to the University's Course Attendance policy (10.2.7), for complete expectations and responsibilities. The office can be contacted at: (973) 353-5063 or deanofstudents@newark.rutgers.edu.
- *Disabilities:* The Office of Disability Services (ODS) is responsible for the determination of appropriate accommodations for students who encounter barriers due to disability. Once a student has completed the ODS process (registration, initial appointment, and submitted documentation) and reasonable accommodations are determined to be necessary and appropriate, a Letter of Accommodation (LOA) will be provided. The LOA must be given to each course instructor by the student and follow up with a discussion. This should be completed

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as early in the semester as possible as accommodations are not retroactive. More information can be found at ods.rutgers.edu. Contact ODS: (973) 353-5375 or ods@newark.rutgers.edu.

- *Temporary Conditions/Injuries*: The Division of Student Affairs can assist students who are experiencing a temporary condition of injury (broken or sprained limbs, concussions, or recovery from surgery). Students experiencing a temporary condition or injury should submit a request for assistance at: <https://temporaryconditions.rutgers.edu>.
- *Pregnancy*: The Office of Title IX and ADA Compliance is available to assist students with any concerns or potential accommodations related to pregnancy. Students may contact the office at (973) 353-1906 or TitleIX@newark.rutgers.edu.
- *Gender or Sex-Based Discrimination or Harassment*: The Office of Title IX and ADA Compliance can assist students experiencing any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking. Students can reports an incident to the office at: (973) 353-1906 or TitleIX@newark.rutgers.edu. Incidents may also be reported by using the following link: tinyurl.com/RUNReportingForm. For more information, students should refer to the University's Student Policy Prohibiting Sexual Harassment, Sexual Violence, Relationship Violence, Stalking and Related Misconduct located at: <http://compliance.rutgers.edu/title-ix/about-title-ix/title-ix-policies/>.
- *Interpersonal Violence*: The Office for Violence Prevention and Victim Assistance can provide any student with confidential support. The office is a **confidential resource** and does **not** have a reporting obligation to report information to the University's Title IX Coordinator. Students can contact the office at: (973) 353-1918 or run.vpva@rutgers.edu. There is also a confidential, text-based line students can text for support: (973) 339-0734.
- *Crisis and Concerns*: The Campus Awareness Response and Education (CARE) Team works with students in crisis to develop a support plan to address personal situations that might impact academic performance. Students may contact the CARE Team at: <http://tinyurl.com/RUNCARE> or careteam@rutgers.edu.
- *Stress, Worry, or Concerns about Well-Being*: The Counseling Center has confidential therapists available to support students. To schedule an appointment: counseling@newark.rutgers.edu or (973) 353-5805. If a student is not quite ready to make an appointment with a therapist but is interested in self-help, check out *TAO at Rutgers-Newark* for an easy, web-based approach to self-care and support: <https://tinyurl.com/RUN-TAO>.
- *Emergencies*: Call 911 or contact Rutgers University Police Department (RUPD) at (973) 353-5111.

Learning Resources:

- *Rutgers Learning Center (tutoring services)*. (973) 353-5608

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<https://sasn.rutgers.edu/student-support/tutoring-academic-support/learning-center>

- *Writing Center (tutoring and writing workshops).* (973) 353-5847

nwc@rutgers.edu

<https://sasn.rutgers.edu/student-support/tutoring-academic-support/writing-center>