

GENERAL CHEMISTRY (21 160 115) 4 credits Fall 2021 Syllabus**Lecture:** Monday, Thursday 1:00PM - 2:20PM **Location:** Ack 123**Recitations:**

Sec	Day	Time	Room	Leader
20	Wed	1:00-2:20	Smith 240	Dr. Coté
21	Wed	4:00 –5:20	Smith 244	Dr. Coté
22	Fri	1:00 –2:20	Smith 246	Dr. Coté
23	Fri	10:00-11:20	Smith 246	Dr. Coté

Lecture Instructor: Dr. Karen Chaffee**Email:** kchaffee@newark.rutgers.edu**Office location:** Olson 310**Office Hours:** TBA

(Tel. 973-353-5460 but please email rather than call)

Prerequisite: College Algebra 640:109**Required Materials:****Openstax; Chemistry 2e. This is a free Online Book available at**<https://openstax.org/details/books/chemistry-2e>

The online and PDF download versions are free. You can also choose to purchase on iBooks or get a print version via the campus bookstore or from OpenStax on Amazon.com.

Chemistry from OpenStax, Print ISBN-10: 1-947172-62-X, Digital ISBN-10: 1-947172-61-1,

Learning Outcomes/Goals:

On completion of this course, students should

- know the fundamentals of the properties of matter, measurement, and uncertainty.
- understand the quantitative aspects of chemical formulas and reactions, for both solution and gas-phase processes.
- have an appreciation for the theories of atomic structure and chemical bonding.
- know the symbolism and terminology of chemistry as well as the organization and information conveyed by the periodic table of elements.
- be competent in categorizing selected types of chemical reactions.
- understand the various forms of energy and the role they play in chemical processes

Tentative Grading

Exam 1	150 points
Exam 2	150 points
Exam 3	150 points
Quizzes	140 points
Canvas Homework	140 points (This is found in Modules on Canvas)
Final Exam (Cumulative)	<u>270 points</u>
TOTAL	1000 POSSIBLE POINTS

- There will be 3 in-class exams offered throughout the semester. You may substitute the **score on the final exam** (as a percentage of points) for the lowest grade among

the three midterm exams. This eliminates the need for any make-up exams. If you miss a midterm exam for any reason, the score on your final exam (as a percentage of points) will be substituted for the exam grade. This is your make-up on midterm.

- 13 quizzes will be offered during recitations. The best 10 quizzes will be counted. **You are only allowed to take the quizzes during your registered recitation section. Quizzes missed (up to 3) for any reason will be counted as the dropped quizzes (There will be no make-up quizzes).**
- There is electronic Homework, assigned through Canvas. It is required. It will be posted on Canvas within a week after a chapter is started in lecture, and will be due within ten days after the chapter is completed. It counts for 140 points of your grade.

Final exam is Tue 12/21 3-6PM Location TBA

Course Policies for exams:

- **You cannot use programmable (graphing) calculators during the exam**
- **NOTE!! There is no bathroom or money-in-the-meter breaks during midterm exams or final UNLESS you speak to the instructor before you take your exam to arrange for a break**
- **There will be assigned seating. Arrive early in order to find your assigned seat.**
- **You must bring a picture ID with you to exam.**
- **No one will be permitted to enter after 30 minutes have elapsed and no one will be permitted to leave until at least 30 minutes have elapsed. (There can be exceptions to this, so please ask if you arrive late—just don't assume we won't let you in.)**
- **All cell phones must be turned off and put away during exams; no smart watches, headphones or any other electronic devices are allowed DURING EXAMS.**

Responsible behavior and commitment:

1. **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.

2. Regular attendance is the minimum demonstration of responsibility and commitment on your part. Therefore, **you are responsible to pick up handouts and returned exams/quizzes and to keep them**

3. **In case of inclement weather, students should find out on their own whether the University will be closed. (Although I will try to find out for you.)**

Scheduled exams will NOT be cancelled if the University does not cancel class.

4. All students must have a valid Rutgers (or Canvas) e-mail account. **Class-related information will be sent to students Rutgers e-mails. Students are responsible for**

checking their Rutgers e-mails so that important class-related information will not be missed.

Tentative lecture outline, the exact topics covered on any given day may vary

Date	Chap	Topic
9/2	1	Introduction to chemistry; Essential Ideas
9/6 MON	No class	Labor Day Holiday
9/8 WED	1	Introduction to chemistry; Essential Ideas
9/9-9/13	2	Atoms, Molecules and Ions
9/16-9/20	2	Atoms, Molecules and Ions and start chapter 3
9/23-9/27	3	Composition of Substances and Solutions
9/30	4	review; start chapter 4 Stoichiometry of Chemical Reactions
10/4		EXAM 1
10/7-10/11	4	Stoichiometry of Chemical Reactions
10/14-10/18	5	Thermochemistry and finish chapter 4
10/21-10/28	5	Thermochemistry
11/1	EXAM 2	
11/4-11/11	6	Electronic Structures and Periodic Properties of Elements
11/15-11/18	7	Chemical Bonding and Molecular Geometry
11/22	8	Chapter 7 and start 8 Advanced Theories of Covalent Bonding,
11/25	No class	Thanksgiving
11/29	No class	Wednesday schedule
12/2	8	Advanced Theories of Covalent Bonding, review
12/6		EXAM 3
12/9-12-13	9	Gases

Final exam is Tue 12/21 3-6PM Location TBA

Note: additional questions will be assigned from the textbook (OpenStax), all the assigned questions are odd numbers. The student solution manual is available to download on openstax.org. The book homework is not required.

Academic Integrity (The following statement is recommended for inclusion on all syllabi.):

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/>

Accommodation and Support Statement

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:

- **Students with Disabilities:** Rutgers University welcomes students with disabilities into all of the University's educational programs. The Office of Disability Services (ODS) is responsible for the determination of appropriate accommodations for students who encounter barriers due to disability. In order to receive consideration for reasonable accommodations, a student with a disability must contact ODS, register, have an initial appointment, and provide documentation. Once a student has completed the ODS process (registration, initial appointment, and documentation submitted) and reasonable accommodations are determined to be necessary and appropriate, a Letter of Accommodation (LOA) will be provided to the student. The student must give the LOA to each course instructor, followed by a discussion with the instructor. This should be completed 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.
- **Religious Holiday Policy and Accommodations:** Students are advised to provide timely notification to instructors about necessary absences for religious observances and are responsible for making up the work or exams according to an agreed-upon schedule. The Division of Student Affairs is available to verify absences for religious observance, as needed: (973) 353-5063 or DeanofStudents@newark.rutgers.edu.
- **Counseling Services:** Counseling Center Room 101, Blumenthal Hall, (973) 353-5805 or <http://counseling.newark.rutgers.edu/>.
- **Students with Temporary Conditions/Injuries:** Students experiencing a temporary condition or injury that is adversely affecting their ability to fully participate in their courses should submit a request for assistance at: <https://temporaryconditions.rutgers.edu>.
- **Students Who are Pregnant:** The Office of Title IX and ADA Compliance is available to assist students with any concerns or potential accommodations related to pregnancy: (973) 353-1906 or TitleIX@newark.rutgers.edu.
- **Gender or Sex-Based Discrimination or Harassment:** Students experiencing any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking, should know that help and support are available. To report an incident, contact the Office of Title IX and ADA Compliance: (973) 353-1906 or TitleIX@newark.rutgers.edu. To submit an incident report: tinyurl.com/RUNReportingForm. To speak with a staff member who is confidential and does **NOT** have a reporting responsibility, contact the Office for Violence Prevention and Victim Assistance: (973) 353-1918 or run.vpva@rutgers.edu.

☐ Learning Resources:

- Rutgers Learning Center (tutoring services)
Room 140, Bradley Hall

(973) 353-5608

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

- Writing Center (tutoring and writing workshops)

Room 126, Conklin Hall

(973) 353-5847

nwc@rutgers.edu

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