WORLD OF CHEMISTRY 101 FALL 2020
Instructor: Dr. Karen Chaffee

Meets W 11:30-12:50 F 11:30-12:50 But lectures will be posted and you can listen anytime. (Exams will be during class time only)
e-mail: kchaffee@newark.rutgers.edu

Tentative Office hours: I will be available by email Monday and Friday AM 10-11 AM. If you email me, I can meet you in Collaborate. I will also typically be available as class starts 11:30-12:50 Wed and Fri to answer questions in Collaborate. I can also schedule an appointment to meet you in Collaborate. (I will answer emails throughout the week as quickly as possible.)

This course is designed for those students not majoring in a science. This course will help students understand the basic quantitative, qualitative and theoretical aspects of chemistry, plus applications to everyday life. It is designed for those students not majoring in a science. Please check with your adviser if you are a science major; it may not count toward your degree.

Webpage: We will use Blackboard:

FOR HELP Email me during office hours or make an appointment to see me at times other than office hours, or come to collaborate when I am there.

Text: Chem 2, 2nd Edition by Hogg
9781305649644

For this course, I will load lectures on Blackboard; the links will be in Course Documents. You can listen to the lectures anytime.

I will load activities/quizzes in Blackboard 'Assignments', they will be required (will be worth class credit.) Exams will also be on Blackboard in assignments

I will be often be available in Collaborate during class time to answer questions and work out problems. This will be like a recitation, and not required. I will let you know when I plan to be there for these recitations.
**Tentative schedule**

I will load lectures on the dates given (or even before!) However, you can watch them anytime. I will also post the power points for the lectures.

<table>
<thead>
<tr>
<th>Date</th>
<th>Chap</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/2-9</td>
<td>2.1- 2.8</td>
<td>atoms, protons, neutrons electrons</td>
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<tr>
<td></td>
<td>3.2b-3.88</td>
<td>measuring and the metric system, unit conversions</td>
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<tr>
<td>9/11-16</td>
<td>continue 2.1-8, 3.2b-8</td>
<td>electron configuration, periodic table</td>
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<tr>
<td>9/18-23</td>
<td>5.1-5.6 and 2.6 and 2.7</td>
<td>ionic and covalent compounds physical properties, chemical formulas revisited</td>
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<tr>
<td>9/25-9/30</td>
<td>continue 5.1-6 chapter 8.1-8.5</td>
<td>naming, the states of matter, chemical equations, moles, review</td>
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<tr>
<td>10/2</td>
<td></td>
<td>EXAM 1</td>
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<tr>
<td>10/7 - 10/9</td>
<td>chapter 8.1-8.5</td>
<td>chemical equations, moles, energy, reactions,</td>
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<tr>
<td>10/14-16</td>
<td>chapter 8.1-8.5</td>
<td>thermodynamics (selected topics)</td>
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<tr>
<td>10/21-10/23</td>
<td>9</td>
<td>acid base</td>
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<tr>
<td>10/28</td>
<td>chapter 13.2-13.10</td>
<td>Introduction to nuclear reactions, radioactivity, half life, nuclear fission</td>
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<tr>
<td>10/30</td>
<td></td>
<td>EXAM 2</td>
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<tr>
<td>11/4-6</td>
<td>chapter 13.2-13.10</td>
<td>nuclear power plants, nuclear weapons</td>
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<tr>
<td>11/11-13</td>
<td>Selected from 12.1-12.4 and 12.6-12.7</td>
<td>organic chemistry, petroleum, energy from petroleum, start chapter 14 Because our class is online, we may do only a limited amount from these sections.</td>
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<tr>
<td>11/18-25</td>
<td>Selected from 14.1-4</td>
<td>organic chemistry, alcohols, carboxylic acids, esters, polymers, begin chapter 15 DNA Because our class is online, we may do only a limited amount from these sections.</td>
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<td>12/2</td>
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<td>EXAM 3</td>
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<td>12/4-9</td>
<td>15, 16, 17 Selected topics</td>
<td>chemistry of life, nutrition, drugs review ( and selected topics including cloning, genetic engineering, and drugs, and other topics if we have time!) Because our class is online, we may do only a limited amount from these sections.</td>
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</tbody>
</table>

**Final Dec. 16 Wednesday 8:00 - 11:00 am**
The grade is based on exams and blackboard activities/quizzes. You will need to go to COURSE DOCUMENTS to learn about class activities/quizzes. Every lecture I will post documents and instructions for what you need to do. I will also send emails to you.
Grading:
E1: 190 points
E2: 190 points
E3: 190 points
Final: 280 points
Activities/quizzes on Blackboard 150
Total: 1000 points

Exams and activities are open book / open notes

END of CHAPTER Homework is not required/collection. These are just extra problems that might help you.
Blackboard activities/quizzes are required
This list may be changed according to the needs of the class.
Chapter 3: 9, 10, 14, 15, 17, 19, 21, 23, 25, 27, 30, 31, 33, 35, 45, 51, 53, 55, 56, 57
Chapter 5: 1, 9, 11, 13a,b,e,f, 19a,b,e,f, 25a, c, e, f, h,
Chapter 8: 1, 4, 15, 19, 21, 23, 24, 33, 48, 49, 52,
Chapter 9: 1, 2, 6, 7, 11, 13, 16a, 18, 19, 20, 21, 22,
Chapter 13: 3, 5, 7, 13, 30, 33, 34, 36, 41, 42--45 47, 50
Chapter 12: 1, 2, 4, 6a,b, 13 a,b,c,d (in 13, just answer, are they the same or different?)
Chapter 14: 3b, d, e, f 9, 12, 19, 20, 26, 36 b and c, 40a,b,c,f 42,
Chapter 15: 9 a and c, 12, 13, 15, 17, 23, 24, 25, 26, 27 a,b,d, 28, 31, 32

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/

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

For Individuals with 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 followed
up with a discussion. This should be done as early in the semester as possible as
accommodations are not retroactive. More information can be found at ods.rutgers.edu.
Contact ODS at (973)353-5375 or via email at ods@newark.rutgers.edu.

For Individuals who are Pregnant: The Office of Title IX and ADA Compliance is available
to assist with any concerns or potential accommodations related to pregnancy. Students
may contact the Office of Title IX and ADA Compliance at (973) 353-1906 or via email at
TitleIX@newark.rutgers.edu.

For Absence Verification: The Office of the Dean of Students can provide assistance for
absences related to religious observance, emergency or unavoidable conflict (e.g., illness,
personal or family emergency, etc.). Students should refer to University Policy 10.2.7 for
information about expectations and responsibilities. The Office of the Dean of Students
can be contacted by calling (973) 353-5063 or emailing deanofstudents@newark.rutgers.edu.

For Individuals with temporary conditions/injuries: The Office of the Dean of Students
can assist students who are experiencing a temporary condition or injury (e.g., broken
or sprained limbs, concussions, or recovery from surgery). Students experiencing a
temporary condition or injury should submit a request using the following link:
https://temporaryconditions.rutgers.edu.

For English as a Second Language (ESL): The Program in American Language Studies
(PALS) can support students experiencing difficulty in courses due to English as a Second
Language (ESL) and can be reached by emailing PALS@newark.rutgers.edu to discuss
potential supports.

For Gender or Sex-Based Discrimination or Harassment: The Office of Title IX and ADA
Compliance can assist students who are experiencing any form of gender or sex-based
discrimination or harassment, including sexual assault, sexual harassment, relationship
violence, or stalking. Students can report an incident to the Office of Title IX and ADA
Compliance by calling (973) 353-1906 or emailing 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/.

For support related to 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 an obligation to report information to the
University’s Title IX Coordinator. Students can contact the office by calling (973) 353-1918 or emailing run.vpva@rutgers.edu. There is also a confidential text-based line available to students; students can text (973) 339-0734 for support.

**For 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 their academic performance. Students, faculty and staff may contact the CARE Team by using the following link: tinyurl.com/RUNCARE or emailing careteam@rutgers.edu.

**For Stress, Worry, or Concerns about Well-being:** The Counseling Center has confidential therapists available to support students. Students should reach out to the Counseling Center to schedule an appointment: counseling@newark.rutgers.edu or (973) 353-5805. If you are not quite ready to make an appointment with a therapist but are 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-DAO.

**For emergencies,** call 911 or contact Rutgers University Police Department (RUPD) by calling (973) 353-5111.

**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