Course Schedule
This syllabus is subject to change according to the needs of the class.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 9/5 - F 9/8</td>
<td>TA Orientation</td>
</tr>
<tr>
<td>²M 9/11 - F 9/15</td>
<td>Safety/Check-In/Chem21 Login</td>
</tr>
<tr>
<td>M 9/18 - F 9/22</td>
<td>Dimensional Analysis</td>
</tr>
<tr>
<td>M 9/25 - F 9/29</td>
<td>Density (must have personal lock)</td>
</tr>
<tr>
<td>M 10/2 - F 10/6</td>
<td>Density Lab Practical</td>
</tr>
<tr>
<td>M 10/9 - F 10/13</td>
<td>No Lab</td>
</tr>
<tr>
<td>M 10/16 - F 10/20</td>
<td>Acid-Base Titration</td>
</tr>
<tr>
<td>M 10/23 - F 10/27</td>
<td>AB Titration Practical</td>
</tr>
<tr>
<td>²M 10/30 - F 11/3</td>
<td>Chromatography</td>
</tr>
<tr>
<td>M 11/6 - F 11/10</td>
<td>Calorimetry</td>
</tr>
<tr>
<td>M 11/13 - F 11/17</td>
<td>Cu Analysis</td>
</tr>
<tr>
<td>M 11/20 - 11/24</td>
<td>No Lab (Fall Break)</td>
</tr>
<tr>
<td>M 11/27 - F 12/1</td>
<td>Lab Practical</td>
</tr>
<tr>
<td>M 12/4 - F 12/8</td>
<td>Checkout</td>
</tr>
<tr>
<td>M 12/5 - W 12/13</td>
<td>No Lab</td>
</tr>
</tbody>
</table>

² – Last Day to Drop without a W is 9/14
³ – Last Day to Drop with a W is 10/30

Academic Calendar: [https://myrun.newark.rutgers.edu/f23](https://myrun.newark.rutgers.edu/f23)

We’ve all got responsibilities outside of this course. It may be jobs, caretaking responsibilities, other courses, legal issues, or things I’ve never considered. The course is designed to provide some flexibility. If you are struggling with something, I can try to connect the resources to you instead of you having to find them on your own.

Accommodations do not compromise the academic integrity of the course and are a tool of equity and inclusion in a field that struggles with that. Please get your LOA to me ASAP so we can talk about what they look like in a lab environment.
Hello!
I'm Dr. Sobers (SOH-burrs). Email: cj.sobers@rutgers.edu. You will be assigned to a TA & Head TA for the semester. They will be your primary contact for the course for everything except grades.

Yo Teach! (aka Communication)
FYI – When initially emailing instructors, the safest/most respectful option is Prof. [Last Name]. They will either state a preference or you can use how they sign off the email for future communications.
I will respond directly or indirectly (via TA) to any message I receive before 1600 on weekdays. I am with my family 1600-1900 weekdays and all day on weekends; I’m sleeping 2200-0600(ish). I will not respond during family or sleeping time.

How do I get an A?
The goal of Chem 113 is to master lab techniques so you can do more complicated experiments in the future. However, we will also be asking you to “think like a scientist” and engage in a Claim, Evidence, Reasoning process. Most importantly, lab is an active learning environment. You cannot get an A by watching others. An A requires meeting the listed criteria.

What if I miss lab?
Due to public health emergencies, it’s very likely you, or someone you live with, may get sick during the semester. Whether it’s with COVID, the flu, or something else...don’t bring it to lab. How will I work with you? You get 2 “no penalty” labs, prelabs, and in class quizzes. Seriously, DO NOT COME TO LAB SICK.

Canvas? Chem21?
Canvas is where FAQs, announcements, and videos/transcripts will be uploaded. Your grades will be located on Chem21. I will post a video on how to figure out what your course grade is

Anything Else?
- At most, grades are a marker of your level of understanding at this point in time.
- Learning is never passive, especially in lab. Watching something is the first step. You need to try.
- There are prelab assignments due BEFORE you enter lab and a 10 minute quiz after the first 5 minutes of lab. Don’t lose easy points by ignoring these.
- Grading will start after Fri section finishes the lab.
- Your voice is important. If something doesn’t make sense or you’re feeling overwhelmed, please tell a TA or myself. I can adjust the course as needed.
- I will try my best to be transparent but I am also human. Do not wait until the last minute to ask for help
Syllabus – The Full Version
Chem 113 – General Chemistry Lab I (21:160:113)
Rutgers, The State University of New Jersey – Newark Campus
Fall 2023

About this syllabus: This syllabus contains facts and asides about my teaching philosophy. Anything highlighted in green relates to my stance on growth mindset, diversity/equity/inclusion, the importance of care from both students and instructor/TAs, and that we all exist outside of this class. I will make mistakes and I encourage criticism & feedback to make your experience more welcoming.

Instructor:
Dr. Courtney Sobers Swindell (please refer to me as Dr. Sobers, pronounced SOH-burrs, she/her)
Contact Info: cj.sobers@rutgers.edu or via Canvas Mail
Student “Chat With Me” Hours by Zoom: Mondays at 1930-2030 and by appointment

You will be assigned a TA. The TA will help by answering questions (not giving answers), guiding through troubleshooting, discussing study approaches, and convey concerns to the instructor (keeping anonymity when possible).

You will also be assigned a Head TA. This person is there to support the TAs but may help you as needed. You can also approach them to ask questions. They have taught this course at least once.

I'm a first-generation American (family is from the West Indies). I have taught at community colleges, private universities, and public universities. Lab was never my favorite class, but there are valuable skills beyond the technical that are best learned in the lab environment.

Meeting Times:

<table>
<thead>
<tr>
<th>Day (section)</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday (section 01)</td>
<td></td>
</tr>
<tr>
<td>Tuesday (section 02)</td>
<td>0830 - 1120</td>
</tr>
<tr>
<td>Wednesday (section 03)</td>
<td></td>
</tr>
<tr>
<td>Thursday (section 04)</td>
<td></td>
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<tr>
<td>Friday (section 05)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Day (section)</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday (section 07)</td>
<td>1300 - 1550</td>
</tr>
<tr>
<td>Tuesday (section 06)</td>
<td></td>
</tr>
</tbody>
</table>

Materials:
- Safety glasses or goggles (purchase online or pick up from stockroom - you only get one for free)
- Lock for equipment lockers (You will not be allowed to conduct any experiments after 9/23 without a personal lock)
- Non-graphing calculator
- Access to Chem21Labs (There are in lab computers but it can be accessed on laptops, tablets, and mobile devices. There is a $10 charge for continued access that you can pay directly via card or through the bookstore for ~$13)
- Pen and Notebook
- Long sleeved lab coat (purchase online or pick up from stockroom - you only get one for free)
- Access to Canvas (canvas.rutgers.edu) – announcements will be posted here
- Rutgers email – CHECK THIS REGULARLY or forward to an account you do check
Course Description:
This is a companion course to General Chemistry I (21:150:115) for science majors. It is ok to not be perfect in this course. While the course is meant to align with the lecture course, we will review any important concepts before you do any experimentation.

Grading:
Interpreting chemistry is a skill and there are resources, not limited to your TA, available to help you with everything from how to approach problems and how to organize your reference notes for quizzes/assignments.

The course is difficult to fail but you do have to demonstrate a deeper understanding in order to end the course with an A.

I will be using contract grading in this course. What this means is as long as you meet ALL the criteria for a certain grade, that’s what will be submitted to the registrar. You will get the LOWEST grade that you meet all the criteria for. You have to take the quizzes in order to get any stockroom distributed materials for the day’s experiment. If you are on the edge of a letter grade, contact me during the LAST WEEK of the semester to discuss options.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>C</th>
<th>B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labs (10)</td>
<td>8 at 60 or higher</td>
<td>8 at 70 or higher</td>
<td>8 at 80 or higher</td>
</tr>
<tr>
<td>Or</td>
<td>7 at 70 or higher</td>
<td>7 at 80 or higher</td>
<td></td>
</tr>
<tr>
<td>Practicals (2)</td>
<td>1 at 60 or higher</td>
<td>2 at 60 or higher</td>
<td>2 at 80 or higher</td>
</tr>
<tr>
<td>Or</td>
<td>1 at 70 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Practical (150)</td>
<td>60 or higher</td>
<td>95 or higher</td>
<td>120 or higher</td>
</tr>
<tr>
<td>Safety (10)</td>
<td>7 or more</td>
<td>8 or more</td>
<td>8 or more</td>
</tr>
<tr>
<td>Clean Up (1)</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Check In &amp; Out (2)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Plus grades require: 4 completed* prelabs & 4 quizzes at 8/10 or better

NOTE: If you score below a 5 on the quiz, you must complete the prelab, if not previously done, in order to conduct the day’s experiment. The quizzes are how we gauge your lab preparation so more than 3 quizzes with 5 or lower mean you will not be allowed to do that day’s experiment until you meet with the instructor to discuss ways to improve.

Announcements:
There will be regular announcements posted to Canvas and forwarded to your Rutgers email address. These announcements may contain information about the assessments, schedule changes, and other course details you should be aware of. You are responsible for reading all announcements and being familiar with the content.
When you have a question outside of class . . .

- check syllabus
- check announcements
- check email
- ask a classmate
- ask your professor!

Late/Missed/Revised Work:

If you find yourself disappointed with your grades, please reach out to the TA or myself so we can try to help you figure out a way to perform at the level you expect.

If you need to miss lab, no excuse or note is required. Several (3+) missed labs usually mean there’s something bigger happening. I will connect you with the CARE team and you will be encouraged to contact your advisor or the Dean of Students for assistance.

Late work is not accepted as it delays our ability to grade in a timely manner. Aim to finish all work during the lab period.

Assessments:

Prelabs

Some labs will have prelab assignments that are due before the start of your lab period. It will be listed in the weekly announcement. The prelabs are meant to familiarize you with specifics of the experiment or the calculations you’ll be expected to do. They include video walkthroughs. We strongly encourage you to write out how you solve the problems so you can refer back to it during lab. You can work on these with your TAs.

In Lab Quizzes

Every lab will start with a 10 minute 2-4 question quiz worth 10 points OF YOUR LAB GRADE that starts 5 minutes after class starts. If you arrive after the quiz period has ended, you will be given a blank quiz in order to receive any equipment from the stockroom but it will not be graded. The quiz primarily focuses on procedure or lab concepts. Occasionally, it will ask for a calculation but you will be told beforehand.
Lab Practicals
You will have 3 lab practicands. There is no prelab or prelab quiz for lab practicals. These labs must be completed by the end of the lab period. The first two are similar to a previous lab. They count as regular labs meaning they can be dropped if needed.

The final practical covers several techniques taught throughout the semester. You will have 70 minutes to complete an experiment under TA observation. You cannot earn an A without attending the final practical but it is optional.

Lab “Reports”
All lab reports will be submitted in Chem21 (chem21labs.com) within 24 hours of the end of your lab period. All calculations will be automatically graded (you have 3 attempts). Your experimental accuracy will be evaluated as well. Occasionally you will be asked to answer an open ended question. All labs, except dimensional analysis and copper analysis, are done independently. You may discuss the labs with your classmates but you must conduct your own experiments.

Safety & Cleanup
Every lab you will be evaluated on your safety which includes, but is not limited to: keeping proper PPE (lab glasses, lab coat, mask), proper attire (ankle length leggings, pants, or skirt, long hair tied up or head scarves pinned back/tucked into lab coat, NO CROCS), lab hygiene/safety (no head/earphones, clean bench space, no left behind equipment, capped bottles), etc. You will receive at most 3 reminders before losing all safety points for the day. The lowest 2 safety point grades will be dropped. You will also sign up for or be assigned a cleanup day where you and some classmates are responsible for cleaning ALL lab rooms (101, 105, and balance room).

Checkout
You must complete lab checkout at the end of the semester. Lab hygiene is important and making sure you clean up your mess before the next student needs to use the equipment is a big deal.

Advice/FYIs
- Speak up. I can’t help you if I don’t know what’s happening. If I made a mistake, point it out. If it’s too much, say that. If you don’t understand, ask a question. We want you to talk to us. The more you interact, the better for you and the entire class.
- The TAs are not there to do the assignments for you. I expect everyone to do things in their own way, not just mimic the TA. This class is about exploring chemistry, so lean into mistakes.
- Use your classmates and discuss the assignments. Discussion and defense of ideas is where learning happens.
- Tutoring is offered through the Learning Center. Details can be found at: http://lc.newark.rutgers.edu/tutoring.php or by visiting Bradley Hall, Rm 140 (110 Warren St., Newark, NJ 07102) or by calling 973-353-5608.

Academic Integrity:
All work is open book/notes/internet HOWEVER your answers should be in your own words with your own explanations. Each student should submit their own work including, but not limited to, data and uploaded content. Submitting identical work to another student, faking attendance,
etc is a violation of the academic integrity policy. Academic integrity, as defined by the University Code of Student Conduct, requires that students:

1) Make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of unsanctioned materials or unsanctioned collaboration.
2) Obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions
3) Treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.

Any academic integrity violations will result in a failing grade for the assignment/work on which the violation occurred that cannot be dropped when calculating the final course grade. Additional violations will result in a failing grade for the course. All violations will be reported to the Academic Integrity Facilitators/Academic Integrity Office.

You are more than capable of completing the work in this course and doing well. If you find yourself deciding whether or not to submit someone else’s work or lying about submitted work, please reach out to myself or the TA so we can try to work with your circumstances to avoid such an incident.
Accommodation and Support Statement

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.

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) at [https://policies.rutgers.edu/sites/default/files/10.2.7%20-%20current.pdf](https://policies.rutgers.edu/sites/default/files/10.2.7%20-%20current.pdf), 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 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](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 report 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: [https://uec.rutgers.edu/policies/title-ix/](https://uec.rutgers.edu/policies/title-ix/).

- **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](http://tinyurl.com/RUNCARE) or careteam@rutgers.edu.

- **Stress, Worry, or Concerns about Well-Being**: The Counseling Center [https://studentaffairs.newark.rutgers.edu/health-wellness/counseling-center](https://studentaffairs.newark.rutgers.edu/health-wellness/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 https://studentaffairs.newark.rutgers.edu/health-wellness/counseling-center/sanvello-app.

- **Emergencies:** Call 911 or contact Rutgers University Police Department (RUPD) at (973) 353-5111.

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

**Emergency Aid Funds**
If you run into unexpected, sudden hardship, you may be eligible for an emergency grant from the University to cover expenses etc.
Website: https://studentaffairs.rutgers.edu/support-students/donate-to-student-affairs/emergency-assistance

**pantryRUN**
Website: https://myrun.newark.rutgers.edu/node/226
Email: pantry_run@newark.rutgers.edu
Phone: (973) 353-5231