

Course Syllabus

Teaching Internship in General Chemistry (CHEM 493)

TI Program Coordinator: Dr. Kornienko

TI Leaders: Robert Abrahams, Nesha Daneshwar, Tara Krishna, Rohit Kumar, and Kishan Patel

Head TIs: Julia Orłowski and Vincent Sotirov

Gen Chem Coordinator: Darrin York

Gen Chem Admin: Paul Kimmel

Recitation Coordinator: Bryan Langowski

ALW Coordinators: Francesca Guerra and Christine Altinis

Course Information

Description

The purpose of this course is to train students to be effective peer mentors and provide them with experience in helping students in General Chemistry. Being a good mentor requires skills such as patience, creativity, good communication, and empathy. All these skills are essential, regardless of one's chosen academic or career path. While teaching interns are not content experts in the same way as a professor, they are more in-tune with the needs of students. There are two components to this program:

1. About one hour of weekly training in order to prepare interns for their learning sessions
2. Approximately two hours of a learning session every week per credit

It is important to note that teaching interns are not lecturers, tutors, or teachers, but rather facilitators, helping students in general chemistry to construct their own knowledge and make it meaningful.

Pre-Requisites

This course is by invitation only. Invitations are made based on success in General Chemistry I and II (01:160:161-162 OR 01:160:159-160).

Course Goals

1. Interns will use their General Chemistry content knowledge to assist current students in the course and will further increase their own understanding of chemistry concepts.
2. Interns will improve upon their teamwork and communication skills by working with each other or with General Chemistry students.
3. Interns will improve their metacognition and epistemic cognition through student interactions, weekly reflections, and class discussions.
4. Interns will be able to apply newly acquired skills and best practices from the weekly meetings to their own learning sessions with General Chemistry students.

Course Philosophy

Professionalism

1. Teaching Interns represent the Chemistry Department and will be a part of how students view the course and department. Interns must always remain professional, calm, and polite when speaking to or about students, TIs, and faculty members.
2. Teaching Interns should have enthusiasm and care when working with students. This includes writing neatly, speaking clearly, maintaining appropriate behavior, paying close attention, and showing interest in what a student says or does.
3. Teaching Interns should remember to maintain an appropriate relationship with students. This includes being familiar with and compliant to the [University policies on discrimination and sexual harassment](#).

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Pedagogy

- Everything a student believes comes from some past experience, whether or not it is correctly applied. To understand a student's difficulties, interns must determine the source of the issue.
- Students must recognize not only what they are learning, but how they are learning it. This requires metacognition and self-regulated learning, which interns should help to foster.
- Students interpret ideas differently based on their prior knowledge. Interns should encourage students to find meaning in their own ways.

Ethics

- Teaching Interns may be provided with materials for the course that they are not to make available to General Chemistry students. If some material is not available to students on their 161/162/159 Canvas sites, do not provide them with physical or electronic copies. Please double-check each semester to see exactly what is available to them.

Required Materials

- No textbook is required for the course other than general chemistry textbook. All necessary reading materials will be posted on Canvas.
- It may be helpful at times to have a laptop, iPad, etc.

Etiquette

- Cell phones are not permitted during Weekly Meetings or Learning Sessions. Please silence them and put them at the end of the desk, face-down during our meetings.
- During Weekly Meetings, laptops may be used for research purposes only. It is expected that while others are presenting or speaking, TIs will not be surfing the web.
- All interns are to be respectful towards their fellow interns. This includes being respectful of others' opinions, giving a speaker their full, undivided attention, and always being polite and constructive in comments.

Course Policies and Expectations

- If a Teaching Intern signs up for a spot, they must fulfill the attendant duties. These duties include being prompt at every scheduled class event and making sure to have access to the relevant room/building.
- If an emergency comes up and an intern is unable to attend a learning session, they are responsible for finding a replacement. They may use emails to contact the other interns. Once a replacement has been arranged, the intern should inform the Head TI of the change.
- It is 100% important that interns check Canvas and their email on a frequent basis.
- Teaching Interns should be familiar with the course policies for General Chemistry courses, and know where to find all important information.
- Teaching Interns must attend their assigned Weekly Meeting and be on time.
- Teaching Interns will always have a positive attitude in helping all students, regardless of the situation. If a student requires professional help, please direct them to a professor, an advisor, or to the Rutgers CAPS program for more serious issues.

Special Needs

Specific accommodations may be made for students who require such support. Visit the Office of Disability Services in person or online (<https://ods.rutgers.edu/>) to learn more about potential support and eligibility. Students should speak with the instructor as early as possible in the semester about such accommodations or if there are any additional concerns.

Learning Sessions

Below is a short description of the different types of learning sessions interns may choose to conduct. A more thorough description, including a full list of options, duties, and reflection questions can be found on Canvas.

On-line Office Hours (OOH)

On-line Office Hours are intended for students to attend without any appointment, but with the guarantee that they will find someone to help them. On-line office hours will be conducted via zoom. Interns will hold the same office hour every week.

Problems-Solving Sessions (PSS)

Throughout the semester, there will be a series of Problems-Solving Sessions at various times and days of the week. Each one will have a specific theme, so TIs should create problems that fit that theme. Two TIs will run an hourly problem-solving session every week of the semester. Special training will be given.

On-line Review Sessions (OPR)

Before each exam we will typically host one on-line review session for each class (161, 162, and 159). Each midterm review will be two hours long, while the final will be three hours long, and the times/locations will be determined. TIs should come prepared with problems to present to students and should encourage students to ask their own questions. Reviews will be large sessions, typically about 300 students ; however, interns should make these sessions as interactive as possible. Special preparation will be required, such as preparing notes and slides. Two TIs will hold a single in-person review session together and will be responsible for all of the review sessions for the entire semester for either 161, 159 or 162.

Active Learning Workshops (ALW)

We will be conducting two large, active-learning style recitations for General Chemistry 161 students this semester. The students who opt to participate will meet via zoom every week. Students will be given activities to do in groups, while TIs will be responsible for tracking attendance, monitoring their progress, and intervening when necessary. Additionally, TIs will attend an ALW-specific staff meeting with some of the instructors each week. The purpose of these staff meetings is to go through the activity for the week, develop a better understanding of the material, and discuss potential challenges students will face. As such, ALW's count as TWO learning sessions.

Leader and Head TI (LHT)

A Leaders (third year TIs) and Head (second year TIs) TI helps the coordinator with the planning of the program, such as with all learning sessions schedules, arranging sign-ups, communication with other TIs and students, etc. They may also work with the coordinator to develop materials for weekly meetings. They typically meet with the TI coordinator once weekly.

Course grading

Final grades in the class will be based on the following components:

Learning Sessions – 50%

The largest portion of the final grade requires TIs to attend and be on time to their learning sessions. It is absolutely imperative to be on time, as students should not have to wait for the instructor in any learning session. Cell phone use or unrelated laptop use is not permitted while helping a student. Unannounced observations will take place throughout the semester.

20% will be deducted from the final grade for each un-substituted session. Missing 2 sessions will result in automatic failure of the course and immediate dismissal.

Weekly Meetings Attendance – 10%

Interns must attend Weekly Meetings with their classmates. They will receive important announcements through these meetings, as well as the pedagogy training necessary to help them become better instructors. Part of the attendance grade is being prompt – not one or two minutes late. The first lateness will be excused, but the second will result in a 50% deduction for that meeting. An unexcused absence will result in a 2% overall deduction. Interns must attend their scheduled weekly meeting, and may not swap with others.

Weekly Meetings Participation – 10%

In order for these weekly meetings to be useful to all, participation is needed. This includes asking questions, contributing during group work, commenting on fellow interns' work or ideas, offering new ideas, and raising important issues to be discussed. TIs do not automatically start with 15%, nor receive full credit for simply being on-time and present. Cell phone and miscellaneous laptop use are not permitted. In addition to interns' active participation, this grade will also be based on listening skills and ability to stay on task.

Electronic Homework Completion – 15%

You all know that homework is one of the requirements for gen chem courses. You might be asked to complete 20 questions from gen chem student's homework one week ahead of all gen chem students and give your opinion on how the questions might be improved or changed. All your suggestions will be considered, and the homework will be revised before it will be given to gen chem students.

Reflections – 15%

Reflections on the learning sessions are due every Sunday by 11:59pm. Additional information about posting reflections will be provided during the first week of classes. TIs should be submitting a reflection every week that a question is posted. Late or unsatisfactory reflections will be given half credit. Incomplete or nearly incomplete posts will be given no credit. In addition to submitting one's own reflection, TIs should comment on a colleagues' reflection at least once per week. Comments should be meaningful, either by offering a suggestion, words of encouragement, or other useful remarks. TIs should submit their comments by the following

week (Sunday). Be sure to spread your comments out, by reaching out to different TIs. Because reflections are essential to becoming more self-aware of one's own strengths and areas of improvements, the instructor will also post a reflection each week for students to read as they wish.

Grading Scheme Grades in the course will be broken down as follows:

A, 94-100 %

B, 84-93 %

C, 74-83 %

D, 65-73 %

F, <65 %

If students have any questions or concerns about their grade, they are encouraged to bring them up with the instructor immediately, rather than waiting until the end of the semester.

Special Needs. Any student requiring extra time and/or other unusual testing accommodations must provide documentation supporting their circumstances and needs directly to Dr. Kornienko during the first week of classes, or immediately after these needs have been documented. ALL requests for extended time and/or other special accommodations for exams must be handled through the Office of Disability Services (<http://disabilityservices.rutgers.edu/>). The Office of Disability Services will be responsible for all necessary proctoring arrangements.

We must treat every individual with respect. We are diverse in many ways, and this diversity is fundamental to building and maintaining an equitable and inclusive campus community. Diversity can refer to multiple ways that we identify ourselves, including but not limited to race, color, national origin, language, sex, disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status, or genetic information. Each of these diverse identities, along with many others not mentioned here, shape the perspectives our students, faculty, and staff bring to our campus. At Rutgers university, we will work to promote diversity, equity and inclusion not only because diversity fuels excellence and innovation, but because we want to pursue justice. We acknowledge our imperfections while we also fully commit to the work, inside and outside of our classrooms, of building and sustaining a campus community that increasingly embraces these core values.

Academic Integrity: Rutgers University policies on academic integrity and procedures for disciplinary action (<https://nbprovost.rutgers.edu/academic-integrity-students>) will be strictly followed. Amongst all other considerations noted in these policies, please note in particular that all exams and quizzes are **closed-book/closed-notes**, that electronic devices other than

calculators are not allowed on your person during any exams, that it is strictly forbidden to share information with any other person or receive information from another person during an exam or quiz, and that it is strictly forbidden to impersonate or otherwise represent yourself as another student in any exam or quiz or have another person impersonate or otherwise represent themselves as you in any exam or quiz.

Mask Requirement: In order to protect the health and well-being of all members of the Rutgers university community, masks must be worn by all persons on campus when in the presence of others (within six feet) and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). **Masks must be worn during class meetings; any student not wearing a mask will be asked to leave.**

Masks must always fully cover the wearer's mouth and nose.

Masks should conform to CDC guidelines and should completely cover the nose and mouth:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-facecoverings.html>

Each day before you arrive on campus or leave your residence hall, you must complete the brief survey on the [My Campus Pass symptom checker](#) self-screening app.

Other safety considerations:

- The university continues to recommend frequent handwashing, the use of hand sanitizer when soap and water are not available, and avoiding touching eyes, nose, and mouth always.
- Papers and other artifacts may be passed around in the classroom and instruments may be shared among students in laboratories, use hand sanitizer, sanitizing wipes or wear gloves during lab periods.

Weather and Other Emergencies: Check the Rutgers website (<http://campusstatus.rutgers.edu/>) to confirm if classes are cancelled due to weather or other emergencies. If classes are on schedule, then labs will be held as scheduled. If there is a delay in opening, as long as there are 2 hours remaining for the lab period, students should attend lab for the remaining time. Changes in schedule and other adjustments will be announced in the lecture. Students are still responsible for all the material from readings, homework problems and lecture even if a particular lab is cancelled due to weather emergency.

Campus status information will also be available through: RU-info Channel on RU-TV Channel 3, RU-info Call Center at 732/932-INFO (4636), or via these local media outlets (class cancellations only): WCTC (1450 AM), WRSU (88.7 FM), WRNJ (1510 AM), WKXW (101.5 FM), WCBS (880 AM), WINS (1010 AM), News 12 New Jersey (Channel 12)

The faculty and staff at Rutgers are committed to your success. Students who are successful tend to seek out resources that enable them to excel academically, maintain their health and wellness, prepare for future careers, navigate college life and finances, and connect with the RU community. Resources that can help you succeed and connect with the Rutgers community can be found at success.rutgers.edu, and nearly all services and resources that are typically provided in-person are now available remotely.