

CHEM 695: Graduate Education in Chemistry (13277)

FALL 2024 COURSE INFORMATION

Course Sessions:

Fridays in GMCS 329 from 12 – 1:40pm

Materials on Canvas: <https://sdsu.instructure.com/courses/164334>

Mode: In-Person Discussion

Instructors:

Dr. Regis Komperda (She/Hers/Her) Office Hours: by appointment (send email)
GMCS 203A

rkomperda@sdsu.edu

Welcome to Chem 695! This course is designed to introduce new graduate students to the department and the variety of roles and responsibilities included therein. In this course we will develop academic skills as scientists, students, and mentors. This will include presentation skills, management and lab safety, research and mentorship ethics, providing feedback, scientific reading and writing, use of online resources, networking, and career planning. This course is designed to support YOU as a new graduate student, therefore we will work together to make this class useful for everyone. Our mission is to set you up for success and provide the community structure to support you long-term.

Students are provided with an SDSU Gmail account, and this [SDSU email address](#) will be used for all communications. All communication regarding this course should occur through official SDSU email accounts. The course instructors will be available via email to answer questions or to schedule office hour appointments. Please allow 24-48 hours for a response, longer over weekends and holidays.

COURSE CATALOG DESCRIPTION

Skills and knowledge needed for success in a chemistry graduate program and development as a scientist. Topics to include introduction to department research, ethics, laboratory safety, mentorship, campus resources, career planning, and effective means of finding and communicating chemical information.

LAND ACKNOWLEDGMENT

For millennia, the Kumeyaay people have been a part of this land. This land has nourished, healed, protected and embraced them for many generations in a relationship of balance and harmony. As members of the San Diego State University community, we acknowledge this legacy. We promote this balance and harmony. We find inspiration from this land, the land of the Kumeyaay.

ESSENTIAL STUDENT INFORMATION

For essential information about student academic success, please see the [SDSU Student Academic Success Handbook](#).

- SDSU provides disability-related accommodations via the Student Disability Services Center (sds@sdsu.edu | <https://sds.sdsu.edu/>) Please allow 10-14 business days for this process.
- Class rosters are provided to the instructor with the student's legal name. Please let me know if you would prefer an alternate name and/or gender pronoun.

COURSE MATERIALS

On Being a Scientist: A guide to responsible conduct in research. 3rd edition. Available on course Canvas page and free at: http://www.nap.edu/catalog.php?record_id=12192

All other required readings will be made available through Canvas.

STUDENT LEARNING OUTCOMES

Upon completion of this course students will be able to:

- LO1) Describe the diversity of research within the and make an appropriate choice of research group for graduate study.
- LO2) Evaluate ethical situations associated with research and know the appropriate steps to take to maintain high ethical standards.
- LO3) Recognize that science is a human endeavor and therefore is impacted by issues of diversity, equity, and inclusion at both local and global scales.
- LO4) Perform safely in a laboratory both as a student and as a researcher.
- LO5) Identify campus and external resources to support wellness, professional development, mentor-mentee relationships, and career planning.
- LO6) Search efficiently for the chemical information needed for course and research work and use popular software to support research work and communication.

COURSE DESIGN

Equity, Inclusion, and Diversity: In this course, we are committed to creating a safe space for people of all views and backgrounds. We may cover difficult topics in this course regarding social issues that you may encounter while teaching or at some other point in your teaching career. It is our intent to present materials and activities that are respectful of diversity: gender identity, sexual orientation, disability, age, socioeconomic status, ethnicity, race, culture, perspective, and other background characteristics. Suggestions about how to improve the value of diversity and inclusion in this course are encouraged and appreciated.

Community Building: This is a course designed to build community among the graduate student cohort and beyond. The course instructors are committed to your success and we intend to support the formation of a community among your peers to expand that support. Formation of a graduate student community can be an integral part of your success and this course will lay the framework for such a community.

AI Policy: Students should not use generative AI applications in this course except as approved by the instructor. Any use of generative AI outside of instructor-approved guidelines constitutes misuse. Misuse of generative AI is a violation of the course policy on academic honesty and will be reported to the University.

Assignments:

| | |
|--|-------------------|
| Class attendance and participation (14 classes x 15 pts) | 210 points |
| Faculty interviews (5 x 30 pts) due by September 13 | 150 points |
| Student presentations + peer feedback | 100 points |
| Reflections (submitted to Canvas) | 90 points |
| Assignments (submitted to Canvas) | 200 points |
| Total | 750 points |

GRADING POLICIES

Grading Scale:

| | | |
|-----------------|-------------------|-----------------|
| | A = $\geq 92.5\%$ | A- = 89.5-92.4% |
| B+ = 87.5-89.4% | B = 82.5-87.4% | B- = 79.5-82.4% |
| C+ = 77.5-79.4% | C = 72.5-77.4% | C- = 69.5-72.4% |
| D+ = 67.5-69.4% | D = 62.5-67.4% | D- = 59.5-62.4% |
| | F < 59.4% | |

SCHEDULE

Tentative Schedule (check Canvas for any updates): *Unless otherwise told by the instructor, all assignments are due in Canvas at 9am on the day of class.*

| Class # | Date/Time | Topic(s) | Assignment(s) Due BEFORE Class | Learning Outcome |
|---------|-----------|---|--|------------------|
| 1 | 8/30 | <ul style="list-style-type: none">Discuss first week of classesFinding a research group | <ul style="list-style-type: none">Canvas introduction | LO1 |
| 2 | 9/6 | <ul style="list-style-type: none">Responsible Conduct of Research (RCR)Discuss ethics case studies | <ul style="list-style-type: none">Read case studiesReflection | LO2, LO3, LO4 |
| | 9/7 | Department Researchapalooza in GMCS 333 | | LO1 |
| 3 | 9/13 | <ul style="list-style-type: none">Graduate student resourcesCampus resources scavenger hunt | <ul style="list-style-type: none">Faculty interviewsResearch rotation ranking | LO5 |
| 4 | 9/20 | <ul style="list-style-type: none">MentoringNetworking, career planning and IDPs | <ul style="list-style-type: none">Scavenger HuntRCR Complete | LO1, LO5 |
| 5 | 9/27 | <ul style="list-style-type: none">Structuring resumes/CVsFinding funding opportunities | <ul style="list-style-type: none">Mentor MapIDP | LO5 |

| Class # | Date/Time | Topic(s) | Assignment(s) Due BEFORE Class | Learning Outcome |
|----------------|------------------|--|---|-------------------------|
| 6 | 10/4 | <ul style="list-style-type: none"> Peer review of resumes/CVs Writing personal statements | <ul style="list-style-type: none"> Resume/CV Funding plan | LO5, LO6 |
| 7 | 10/11 | <ul style="list-style-type: none"> Giving presentations Questions for grad advisors Mid-semester survey | <ul style="list-style-type: none"> Personal Statement | LO1, LO5, LO6 |
| 8 | 10/18 | <ul style="list-style-type: none"> IP and entrepreneurship Planning for rest of term | <ul style="list-style-type: none"> Mid-semester reflection | LO5, LO6 |
| 9 | 10/25 | <ul style="list-style-type: none"> Deliver presentation Provide feedback to peers | <ul style="list-style-type: none"> Presentation outline | LO6 |
| 10 | 11/1 | <ul style="list-style-type: none"> Deliver presentation Provide feedback to peers | <ul style="list-style-type: none"> Presentation revision | LO6 |
| | 11/4 | Submit Research Group Ranking | | |
| 11 | 11/8 | <ul style="list-style-type: none"> Software, online and library resources Academic publishing | <ul style="list-style-type: none"> Presentation revision | LO5, LO6 |
| 12 | 11/15 | <ul style="list-style-type: none"> Issues related to equity, diversity, and inclusion | <ul style="list-style-type: none"> Implicit association reflection | LO3 |
| 13 | 11/22 | <ul style="list-style-type: none"> Professional reading and writing | <ul style="list-style-type: none"> Reflection | LO5, LO6 |
| | 11/29 | THANKSGIVING BREAK – NO CLASS | | |
| 14 | 12/6 | <ul style="list-style-type: none"> Peer review of writing End of semester discussion | <ul style="list-style-type: none"> Writing assignment | LO5, LO6 |

ROTATION & RESEARCH GROUP SELECTION TIMELINE

- **Sept 7:** Learn about faculty research in the department at Researchapalooza
- **Sept 7 – Sept 12:** Interview five faculty about their research
 - Students are required to conduct a minimum of 3/5 interviews within their chosen division.
- **Sept 13:** Submit research rotation ranking (Top 3 + 1 alternate)
- **Sept 20:** Rotation schedules sent to graduate students
- **Sept 23 – Oct 4:** Research Rotation 1
- **Oct 7 – Oct 18:** Research Rotation 2
- **Oct 21 – Nov 1:** Research Rotation 3
- **Nov 4:** Submit research group ranking
- **Nov 13:** Graduate students notified of research group placement

Opting out of rotations: The graduate committee will only consider opt outs for new students that have spent greater than 6 months in a given lab at SDSU. Summer rotations will not be considered adequate justification. Graduate committee may consider students requesting an opt out if the faculty is pre-tenure with a justified need for graduate students.