

CHEM 695: Graduate Education in Chemistry (8318)

FALL 2023 COURSE INFORMATION

Course Sessions:

Fridays: 12 pm – 2 pm in GMCS 329

Materials on Canvas: <https://sdsu.instructure.com/courses/134997>

Instructors:

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

Sharai Mendez (She/Her/Ella) Office Hours: by appointment (send email)
sjmendez@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.

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.

COURSE CATALOG DESCRIPTION

Skills and knowledge needed for success in chemistry graduate programs which include techniques for successful teaching, key safety protocols, ethical issues in teaching and research, department research programs, effective means of finding and communicating chemical information.

STUDENT LEARNING OUTCOMES

Upon completion of this course students will be able to:

- LO1) Teach undergraduates successfully in laboratories.
- LO2) Perform safely in a laboratory both as a student and as a researcher.
- LO3) Evaluate ethical situations associated with research and know the appropriate steps to take in order to maintain high ethical standards.
- LO4) Be knowledgeable of the diversity of research within the department in order to make an appropriate choice of research for their graduate study.
- LO5) Search efficiently for the chemical information they will need for their course and research work.
- LO6) Use popular chemistry software.

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.

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.

Assignments:

Class attendance and participation (14 classes x 15 pts)	210 points
Faculty interviews (5 x 30 pts) due by September 8	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%	

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.

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	8/25 12 - 2 pm	<ul style="list-style-type: none"> • Discuss first week of classes • Finding a research group 	<ul style="list-style-type: none"> • Canvas introduction 	LO2, LO4
	8/26 9 am – 4pm	Department Research-palooza in GMCS 333		LO4
2	9/1 12 - 2 pm	<ul style="list-style-type: none"> • Responsible Conduct of Research (RCR) • Discuss ethics case studies 	<ul style="list-style-type: none"> • Read case studies • Reflection 	LO2, LO3, LO4
3	9/8 12 - 2 pm	<ul style="list-style-type: none"> • Navigating SDSU • Campus resources scavenger hunt 	<ul style="list-style-type: none"> • Faculty interviews • Research rotation ranking 	LO4
4	9/15 12 - 2 pm	<ul style="list-style-type: none"> • Mentoring • Finding funding opportunities 	<ul style="list-style-type: none"> • RCR Complete • Mentor Map 	LO4
5	9/22 12 - 2 pm	<ul style="list-style-type: none"> • Structuring resumes/CVs • Writing personal statements 	<ul style="list-style-type: none"> • Funding plan 	LO4

Class #	Date/Time	Topic(s)	Assignment(s) Due BEFORE Class	Learning Outcome
6	9/29 12 - 2 pm	<ul style="list-style-type: none"> Peer review of resumes/CVs and personal statements Individual Development Plans Networking and career planning 	<ul style="list-style-type: none"> Resume/CV or personal statement 	LO4
7	10/6 12 - 2 pm	<ul style="list-style-type: none"> Giving presentations Questions for Grad Advisors Mid-semester survey 	<ul style="list-style-type: none"> IDP 	LO1
8	10/13 12 - 2 pm	<ul style="list-style-type: none"> Software, online and library resources 	<ul style="list-style-type: none"> Presentation outline 	LO5, LO6
9	10/20 12 - 2 pm	<ul style="list-style-type: none"> Deliver presentation Provide feedback to peers 	<ul style="list-style-type: none"> Presentation revision 	LO1
10	10/27 12 - 2 pm	<ul style="list-style-type: none"> Deliver presentation Provide feedback to peers 	<ul style="list-style-type: none"> Presentation revision Research group ranking 	LO1
11	11/3 12 - 2 pm	<ul style="list-style-type: none"> Check in with grad advisors Planning for rest of term 	<ul style="list-style-type: none"> Reflection 	LO4
11/10		VETERAN'S DAY – NO CLASS		
12	11/17 12 - 2 pm	<ul style="list-style-type: none"> Issues related to equity, diversity, and inclusion 	<ul style="list-style-type: none"> Implicit association reflection 	LO4
11/24		THANKSGIVING BREAK – NO CLASS		
13	12/1 12 - 2 pm	<ul style="list-style-type: none"> Academic literature Professional writing 	<ul style="list-style-type: none"> Reflection 	LO4
14	12/8 12 - 2 pm	<ul style="list-style-type: none"> Peer review of writing End of semester discussion 	<ul style="list-style-type: none"> Writing assignment 	LO4

ROTATION & RESEARCH GROUP SELECTION TIMELINE

- **Aug 26:** Learn about faculty research in the department at Research-palooza
- **Aug 26 – Sept 8:** Interview five faculty about their research
 - Students are required to conduct a minimum of 3/5 interviews within their chosen division.
- **Sept 8:** Submit research rotation ranking (Top 3 + 1 alternate)
- **Sept 15:** Rotation schedules sent to graduate students
- **Sept 18 – Sept 29:** Research Rotation 1
- **Oct 2 – Oct 13:** Research Rotation 2
- **Oct 16 – Oct 27:** Research Rotation 3
- **Oct 27:** Submit research group ranking
- **Nov 17:** 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.