GEOL 601 Professional Development for Geoscientists **Fall 2025**

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Office Hours: Tuesday 10-11 am, Wednesday 12-1 pm

Course objectives:
Build understanding of how science is conducted; Build scientific writing and presentation skills; Further understanding of ethics in science and ethics in professional practice; Plan for developing professional skills; DEI issues in the geosciences

Textbook and Readings:
Writing Science: how to write papers that get cited and proposals that get funded by Josh Schimel. Although we will not be discussing the book in class, I highly recommend reading it as background material for learning to write papers and proposals.
This book can be downloaded free from the CSU Libraries

Course description:
Discussions/lectures/exercises related to:
The nature of scientific research
The nature of scientific literature/ how publishing and proposal writing works
Writing, editing, and rewriting in the sciences
Planning for professional development
Ethics of science; professional ethics
DEI issues and under-representation in the geosciences

Responsible Conduct of Research Training:
Graduate students paid by federal grants, are required to have both face-to-face and on-line training in the responsible conduct of research. This course is recognized by the university as satisfying the face-to-face component. The on-line training is available at **https://vpr.colostate.edu/ricro/rcr/training-and-certification/**

Weekly Schedule (guest speaker in parentheses):
Week 1 (8/29): Being a graduate student at CSU; how to be an effective TA; Responsible Conduct of Research (RCR) Training at CSU; creating an individual development plan (IDP)
Week 2 (9/5): Dealing with rejection; how to complete a graduate degree (Guest: Jennifer Briggs, Lisa Stright)
Week 3 (9/12): Research habits: Time management (Guest: CeCe Hurtado, Ramboll Group); development plan discussion
Week 4 (9/19): Networks, networking, and professional societies in the geosciences; research funding through societies; development plan presentation
Week 5 (9/26): Research habits: Proposal writing, asking big questions, conceptual models (Guest: Ellen Wohl)
Week 6 (10/3): How to read a scientific paper (Guest: Lauren Harrison)

Week 7 (10/10): How to give a research talk (Guest: Dan McGrath)
Week 8 (10/17): Communicating science (Guest: Matt Sparacino, City of Greeley); proposal abstract due
Week 9 (10/24): No Class, Sara at GSA
Week 10 (10/31): Effective collaboration (Guest: Sean Gallen); development plan
Week 11 (11/7): DEI issues in the Geosciences (Guest: Sean Bryan); first draft proposal due
Week 12 (11/14): Data management: the good, the bad, and the ugly (Guest: Matt Ross)
Week 13 (11/21): Q&A with graduate student panel (Guests: Grad student panel TBD); peer reviews due
Week 14 (11/28): No class, Fall Break
Week 15 (12/5): Research ethics; follow-up discussion on peer review
Week 16 (12/12): eLightning presentations; final proposal due

Academic Integrity:
This course adheres to the Academic Integrity Policy of Colorado State University given at catalog.colostate.edu/general-catalog/policies/students-responsibilities.
Specific academic integrity guidelines for this course are:

1. The written assignments should be your own work.
2. Where you have borrowed ideas from published literature, provide proper citations.

Grading:
Grades will be based on exercises and in-class discussions as indicated on the schedule. If you have a compelling academic reason to miss a class (e.g. you need to do field work), please let me know ahead of time so I can make arrangements for alternate assignments or altered due dates. If you are too ill to come to class let me know as soon as you reasonably can and I will decide what you need to do to make up for the absence.

There will be four assignments:

1) Individual Development Plan (graded upon completeness)
2) Development of a project proposal (in stages and including a peer-review)
3) An eLightning presentation of your proposed research on the last day of class
4) Summary of three seminar presentations at CSU

Course Grades will be based on the following:

Professional Development Plan	10%
Abstract for proposal	10%
First draft proposal	15%
Peer review of two other students' proposal	10%
Final Proposal	20%
eLightning talk	10%
Seminar summaries	15%
Participation in discussions	10%

Assignments in order by due date and time *(All assignments due at 5PM to Canvas)*

Professional Development Plan	Sept. 12
Proposal abstract	Oct. 17
First draft of proposal	Nov. 7
Peer review of two draft proposals	Nov. 21
Final proposal	Dec. 12
eLightning presentation	Dec. 12
Seminar summaries	Dec. 12

CSU is committed to providing an environment that respects the dignity and worth of every member of its community.