

Spring 2026 CHEN 4020 (Senior Thesis) Syllabus

Faculty Coordinator

Tim Whitehead (Email: Timothy.Whitehead@Colorado.edu)

Office Hours: By appointment

Course Objectives

- Learn the basics of planning, executing, and critically assessing scientific research.
- Develop more proficiency at reporting technical work in different formats: (1) oral presentation, and (2) written thesis.
- Add new knowledge by performing scientific research under the guidance of a research advisor.

Course Method

- Students will work under the supervision of an experienced professional researcher.
- Students will submit various documents, ending with an oral presentation and a written thesis.

Course Schedule

Week	Description
Week 2 (week of Jan 12 th)	Meet to go over semester deliverables and schedule (day/time TBD based on survey results)
Week 10 (Fri, 3/13)	Specific structure for Final Thesis Report due to Instructor and Advisor – see “Thesis Report Guidelines” document for details
Week 15 (4/13-4/17)	Group Oral Presentations (will survey class for times; TBD if this will be in person or remote using Zoom)
Week 16 (Wed, 4/22)	Thesis report due to Instructor and Advisor

Assignments

Assessed Item	Points	Remark
General Structure for Thesis Report	5	Due Fri, 3/13 by midnight. Instructor will assess this item. Full credit if a final General Structure is submitted (structure is up to student/advisor); no credit otherwise.
Oral Presentation	30	Week of 4/13-4/17. Instructor will assess the Oral Presentation. Assessment will focus on how effective the presentation was at communicating the research.
Thesis Report	65	Due Wed, 4/22. Both instructor and research advisor will separately assess the report. Instructor will assess the quality of writing and the technical strength of the research from the view of a non-expert. The advisor will assess the work as a technical expert. Both assessments will get equal weight.
TOTAL	100	

Grading Basis

90% - 100%	A- through A
80% - 89%	B- through B+
70% - 79%	C- through C+
60% - 69%	D- through D+
< 60%	F

Timeliness

No credit for late submission of any assessed items, except in extraordinary cases.

Originality

All content in your assessed items should be your personal work.

University Policies

University Policies can be found [here](#) and below.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part of adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: StudentConduct@colorado.edu. Students found responsible for violating the Honor Code will be assigned resolution outcomes from Student Conduct & Conflict Resolution and will be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or DSinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

If you have a temporary illness, injury or required medical isolation for which you require adjustment,

Accommodation for Religious Obligations

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. Please communicate the need for a religious accommodation in a timely manner. See the [campus policy regarding religious observances](#) for full details.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information does not always align with how they identify. If you wish to have your preferred name (rather than your legal name) and/or your preferred pronouns appear on your instructors' class rosters and in Canvas, visit the [Registrar's website](#) for instructions on how to change your personal information in university systems.

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, marital status, political affiliation, or political philosophy.

Additional classroom behavior information

- [Student Classroom and Course-Related Behavior Policy.](#)
- [Student Code of Conduct.](#)
- [Office of Institutional Equity and Compliance.](#)
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Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits [protected-class](#) discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email OIEC@colorado.edu. Information about university policies, [reporting options](#), and [OIEC support resources](#) including confidential services can be found on the [OIEC website](#).

Please know that faculty and graduate instructors are required to inform OIEC when they are made aware of incidents related to these concerns regardless of when or where something occurred. This is to ensure the person impacted receives outreach from OIEC about resolution options and support resources. To learn more about reporting and support a variety of concerns, visit the [Don't Ignore It page](#).

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact [Counseling and Psychiatric Services \(CAPS\)](#), located in C4C, or call (303) 492-2277, 24/7.

Acceptable Use of AI in This Class

All use of AI must be cleared with your primary thesis advisor and approved in writing (CC me on an email). Additionally, AI must be explicitly mentioned in the Acknowledgements section of your paper. Examples: “The primary Python code was generated by Gemini using custom prompts”; “The initial draft of the abstract was generated by ChatGPT using the body of the research paper as input”. My view: AI has been incredibly helpful for researchers on performing literature searches; writing custom code; explaining muddy concepts; and streamlining text. I use AI tools daily to improve the quality and breadth of my research program and have no problem with students using such tools, with caveats noted above.