

CHEN 1300 – Intro to Chemical Engineering

Course Syllabus ~ Fall 2024

Instructor: Dr. Wendy Young wendy.young@colorado.edu
Office: JSCBB D1B20 Phone: 303-492-8721

Class Meetings: Monday, 4:05-4:55 pm, JSCBB A115 (in person)

Office Hours: Monday, 2:30-3:30 pm, JSCBB D1B20. **You are also welcome to make an appointment or email questions.**

CA: Karl Pankratz Karl.Pankratz@colorado.edu

Texts: Required: *A Mind for Numbers: How to Excel at Math and Science* by Barbara Oakley, Penguin, New York, New York, 2014.
Required: *So You Want to Talk about Race* by Ijeoma Oluo, Seal Press, 2018

Learning Objectives

- Learn about careers for chemical and biological engineers (ChBE)
- Learn about the ChBE curricula and optional emphases at CU
- Learn about special programs at CU of interest to ChBE students
- Gain insight into contemporary ChBE processes and issues
- Get an overview of the industries where ChBEs work
- Assess the impact of engineering solutions
- Examine ethical dilemmas that chemical and biological engineers face
- Get an introduction to ChBE faculty, students, and professionals
- Learn about problem solving strategies and learning techniques

Assignments and Grading Basis

Assignments are due by 11:59 pm in CANVAS on days indicated at the end of this document. Assignments turned in after the due date will be counted for 50% of possible points up thru 11:59 pm on **Wed, Dec 4**.
If you are having difficulties, please let Dr. Young know before due dates so we can work out a solution together; I understand you have quite a few priorities and am happy to work together so reach out!

Assignment		Grade Distribution	
13 Lecture Reflections (2.5% each)	32.5%		
Contemporary Technology Video	27.5%	90% - 100%	A- through A
LinkedIn Profile	5%	80% - 89%	B- through B+
Lifelong Learning Assignment	10%	70% - 79%	C- through C+
Ethics Assignment	20%	60% - 69%	D- through D+
Career Fair Summary	5%	≤ 59%	F
	100%		

Lecture Reflection Papers

- o Due by 11:59 pm each week the **Wednesday** after class
- o These can be turned in late for up to half credit; the last possible time to turn these in is 11:59 pm on Wed, Dec 4
- o Content: comment on the lecture itself and/or what you learned from it
- o Format (can be informal):

- Name and lecture topic at top
- At least half a page
- Hand-written or typed
- Paragraph form or bullet points
- Can be a document or a photo of hand-written notes

Attendance & Excused Absence Make-Ups

- Class attendance is mandatory and participation is an integral part of your grade. Students lose 5% of their semester grade for the first unexcused absence and an additional 10% for the second. Additional unexcused absences will result in course failure.
- Each student must sign a daily attendance sheet **within the first 10 minutes of class each day**. Plagiarism of signature on sign-in sheet will result in a 25% semester grade deduction.
- Excused Absence Policy (some of you may HAVE to miss class for a variety of reasons):
 - Send instructor and CA an email BEFORE class with the reason (will reply ok or not)
 - Emails sent AFTER class will not qualify for this policy
 - As a make-up assignment for missing class, you must attend a student society meeting or a professional development event (list below) or a volunteer activity for engineering.
 - Examples include: AICHE, Theta Tau, Engineers Without Borders, Engineering Council, Engineering Ambassadors, Workshop & Career Fair Prep Session (list below), Employer Engagement Event (list below), tour guide for Admitted Students Day.
 - Submit a 1-page paper that summarizes your activity. At the top of the paper include “Make-up Assignment for (DATE)” and the Title of the activity you attended, and email to the professor and CA. This paper will replace your score on that week’s lecture reflection paper.

Workshops & Career Fair Prep Sessions (Log into [Handshake](#) for event and registration details)

Professional Headshots	Every Mon – Fri	9am-3:30pm	C4C, Rm. S440
Job Search Strategies: Grad Students & Postdocs	Sept 3, 10, 17, & 24	2:00pm	Virtual
Build Your Resume	Sept 4	5:30pm	AERO 111
Build Your Resume	Sept 5	5:30pm	DLC 1B70
Build Your Customized Resume & Cover Letter	Sept 9	5:30pm	AERO 111
Build Your Customized Resume & Cover Letter	Sept 10	5:30pm	DLC 1B70
Job & Internship Search Strategies: All Students	Sept 12	5:30pm	DLC Rm. 1B70
Prepare for the Career Fair	Sept 17	5:30pm	DLC Rm. 1B70
Job & Internship Search Strategies: International Students	Sept 18	5:30pm	DLC Rm. 1B70
Networking & Building a Compelling Online Presence	Sept 24	5:30pm	DLC Rm. 1B70
Career Fairs Are Over—Now What? Job and Internship Search Strategies	Oct 8	5:30pm	DLC Rm. 1B70

Employer Engagement Events (Log into [Handshake](#) for event and registration details)

Employer Networking Tables: check Handshake or weekly Eng student email for scheduled employers	Thursdays	9am-11am 12pm-3pm	JSCBB Atrium ENG Center Lobby
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Employer Info Sessions: check Handshake or weekly Engineering student email for scheduled employers	TBA	TBA	On-campus & virtual
Resume Critiques with Employers: log into Handshake to register for a time slot	Sept 17	10am-2pm	DLC Rm. 1B70
Mock Interviews with Engineering Alumni: log into Handshake to register for a time slot	Nov 12	8am-7pm	Virtual

Career Fair Summary

- Please attend one of the following [career fairs](#). You may attend an alternate fair not on the list, but please check with the instructor beforehand. Note: recheck day/time/location before going; sometimes last-minute changes are made.
- Bring Career Fair Summary sheet (available on Canvas), fill it out, and submit it to Canvas
- Turning in a picture or a scan of the sheet is acceptable
- Answers can be handwritten and informal
- Log into [Handshake](#) for event registration information and participating employers

Civil, Environmental, & Architectural Career & Internship Fair	Sept 25	12pm—4pm	UMC Ballroom
All Industries Virtual Career & Internships Fair	Oct 1	10am-3pm	Virtual
STEM Career & Internship Fair Day 1: <i>Computing & Software</i>	Oct 2	11am-4pm	UMC Ballroom
STEM Career & Internship Fair Day 2: <i>Aerospace & Defense</i>	Oct 3	11am-4pm	UMC Ballroom
Biomedical Engineering Career Symposium	Oct 7	4pm-7pm	UMC Ballroom
Roam Anywhere: All Industries & Majors Career & Internship Fair	Oct 8	11am-4pm	UMC Ballroom
Physics & Quantum Career & Internship Fair	Oct 29	3:30-6:00pm	UMC Ballroom
Others you may find but please check with professor beforehand			

Course Communication

All class slides, homework, and videos will be placed on Canvas for students to download.

Recording of Lectures

All lectures will be automatically recorded but the Small Group Discussions and the Ethics lecture will take place around the classroom without microphones and not adequately captured by the classroom recording. Class recordings will not be distributed outside the audience of students, instructors, and other class staff. Access to a recording is limited to class participants and staff through one's CU Boulder IdentiKey. Only the course instructor and staff are authorized to record a class; students are not authorized to record a class through any means.

Ethical Standards

This course follows the University Honor Code (see University Policies – Honor Code for details).

NO RESUBMISSION OF WORK, including your own work that you turned in for a different CU, high school, or other class. Resubmission and plagiarism are grounds for failure of the class.

University Policies

The campus policies can also be found [here](#).

CU Community of Care

CU Boulder is committed to a community of care in which students are supported by faculty and staff throughout their college journey. You don't have to face academic challenges alone – CU and the college are here to help you learn and succeed in your coursework and campus life. Part of this community of care is your connection to faculty and staff across campus. Our college promotes and hopes you will connect with faculty or staff who may reach out during your educational journey at CU.

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, political affiliation, or political philosophy.

For more information, see the [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

Requirements for Infectious Diseases

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all applicable campus policies and public health guidelines to reduce the risk of spreading infectious diseases. If public health conditions require, the university may also invoke related requirements for student conduct and disability accommodation that will apply to this class.

If you feel ill and think you might have COVID-19 or if you have tested positive for COVID-19, please stay home and follow the [guidance of the Centers for Disease Control and Prevention \(CDC\) for isolation and testing](#). If you have been in close contact with someone who has COVID-19 but do not have any symptoms and have not tested positive for COVID-19, you do not need to stay home but should follow the [guidance of the CDC for masking and testing](#).

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 required medical isolation for which you require adjustment, please talk with the instructors.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

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.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: honor@colorado.edu, 303-492-5550. Students found responsible for violating the [Honor Code](#) will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

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 violence (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. 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 cureport@colorado.edu. Information about university policies, [reporting options](#), and [support resources](#) can be found on the [OIEC website](#).

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

Religious Holidays

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. In this class, please talk with the instructors if there are conflicts.

See the [campus policy regarding religious observances](#) for full details.

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.

Free and unlimited telehealth is also available through [Academic Live Care](#). The [Academic Live Care](#) site also provides information about additional wellness services on campus that are available to students.

Course Schedule

CHEN 1300 ~ Intro to ChemE ~ Fall 2024 ~ Mon, 4:05-4:55 ~ BIOT A115			
Lecture	Date	Topic	Assignments Due 11:59pm WEDNESDAY of each week
L'01	26-Aug	Class Introduction	L'01 Class Reflection
	2-Sep	Labor Day - No Lecture	Nothing due
L'02	9-Sep	CHEN and CBEN Fields	L'02 Class Reflection
L'03	16-Sep	CHEN and CBEN Curricula, Academic Success, Self-Care	L'03 Class Reflection Contemporary Technology Video
L'04	23-Sep	CU Opportunities and Professional Development	L'04 Class Reflection
L'05	30-Sep	How to Study Part I (Prof John Falconer)	L'05 Class Reflection Create LinkedIn Profile
L'06	7-Oct	How to Study Part II (Prof John Falconer)	L'06 Class Reflection
L'07	14-Oct	CHEN & CBEN Student Talks (research, internships, activities, etc.)	L'07 Class Reflection Lifelong Learning Assignment
L'08	21-Oct	Ethics in Engineering	L'08 Class Reflection
L'09	28-Oct	Small Group Discussions: Graduate School (Abby Harrell, Zach Meduna), Law School (Amy Kramer), MD/PhD (Bruce Kirkpatrick)	L'09 Class Reflection
L'10	4-Nov	Guest Speaker: Dr. Randy Cortright (NREL) – Decarbonization, Renewable Energy, Alternative Process Technologies	L'10 Class Reflection Ethics Assignment
L'11	11-Nov	Alumni Small Group Discussions, mix of fields*	L'11 Class Reflection
L'12	18-Nov	Alumni Small Group Discussions, mix of fields*	L'12 Class Reflection Career Fair Summary
	25-Nov	Fall Break - No Lecture	Nothing due
L'13	2-Dec	Better Engineering Solutions through Diversity of Viewpoints	L'13 Class Reflection All late assignments & class reflections are due Wed, Dec 4
L'14	9-Dec	NO CLASS (day off to make up for attending career fair)	---
		NO FINAL!!!	---

*Fields: Energy, Materials, Decarbonization, Pharma, Biotech, Biomedical, etc.