

CHBE100 Syllabus, Fall 2019

Instructors

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Class Meeting Time

M 3:00 to 3:50, IRB 1207. Attendance is mandatory at all class sessions.

Course Listing, Pre- and Co-Requisites

As per the University listing of this course, students must receive departmental permission.

Textbook

No textbook is required.

Computer Requirements

A computer with internet access, Office 2016 (available [free of charge](#) to UMD students), [Google Drive \(Links to an external site.\)](#) and [Google Slides \(Links to an external site.\)](#)(both available free of charge to UMD students) will be frequently required.

Learning Management System

Canvas, <https://umd.instructure.com>. The instructor will post course material such as this course mechanics document, assignments, handouts as well as your grades on this website. Your grades will be accessible only through your login.

Other Resources Useful to Chemical Engineers

Perry's Handbook

Green D, Perry R (2007) Perry's Chemical Engineers' Handbook, 8th edition. McGraw-Hill Professional. Available free of charge (UM campus only) at [this link \(Links to an external site.\)](#); ISBN 978-0-071-42294-9.

Kirk-Othmer Encyclopedia

Seidel A, Kirk R, Othmer D, Kroschwitz J, Howe-Grant M (2014) Kirk-Othmer Encyclopedia of Chemical Technology. Wiley. Available free of charge (UM campus only) at [this link \(Links to an external site.\)](#); ISBN 978-0-471-23896-6.

Arrangements for Students with Disabilities

Any students with learning disabilities will be provided the necessary accommodation(s). To ensure that this is done in a timely manner, students needing accommodation(s) must see the instructor before Monday, 9Sep19.

Course Outcomes

After successful completion of CHBE100, students will:

1. Demonstrate an understanding of what chemical engineering is and is not.
2. Describe several possible career paths for chemical engineers.

3. Demonstrate a detailed understanding of the chemical engineering undergraduate curriculum and its prerequisite structure; develop customized academic plans for themselves and for hypothetical scenarios.
4. Demonstrate understanding of the department, college and university resources available to help students succeed.
5. Develop career-development plans for themselves, including undergraduate research and/or internships.
6. Develop professional skills including teamwork and time management.
7. Build a lasting professional relationship with a peer mentor.

Important Dates

| | |
|--|--------------------------------|
| Scheduling Deadlines | |
| Last date to drop course without a “W” | 9Sep19 (Monday, unchangeable) |
| Last date to drop course with a “W” | 04Nov19 (Monday, unchangeable) |
| Major Scheduled Grading Events (Attendance Mandatory) | All class sessions |

Tentative Course Schedule

| Date | Topic |
|-------|---|
| 8/26 | Course outcomes & ChBE activities |
| 9/2 | No class- LABOR DAY |
| 9/9 | What is chemical engineering & career options in ChBE |
| 9/16 | Mentor panel discussion |
| 9/23 | ChBE curriculum and policies |
| 9/30 | Undergraduate research (intro & student speakers) |
| 10/7 | Careers in ChBE: Guest speakers, Part I |
| 10/14 | Time management & project planning |
| 10/21 | Co-op, intern & study abroad (intro & student speakers) |
| 10/28 | Student project presentations, Part I |
| 11/4 | Careers in ChBE: Guest speakers, Part II |
| 11/11 | Student project presentations, Part II |

| | |
|-------|---|
| 11/18 | Graduate school options and pursuing a career in research |
| 11/25 | Personal road map development |
| 12/2 | Careers in ChBE: Guest speakers, Part III |
| 12/9 | Professionalism & team skills |

Grading

Your course grade will be apportioned as follows:

| Course Component | Weight (Pts) |
|---|--------------|
| Group Project | 100 |
| Reflection Assignments | 175 |
| Personal Roadmap | 100 |
| Time Management Assignment | 100 |
| Faculty Research Summary & Mock Application | 150 |
| Mock Internship Application | 150 |
| Engineering Engagement Activities | 125 |
| Class Participation | 100 |
| Total | 1000 |

Major Assignment Descriptions

Assignments and projects are described briefly below. Detailed descriptions and requirements will be provided on Canvas when assigned.

Group Project

This project will allow students to explore a particular CHBE company in depth. The project will include a PowerPoint presentation to the class. This project will be done in teams assigned by CATME team tool and will include a peer evaluation for team contribution.

Reflection Assignments

Reflection assignments will be assigned throughout the semester. These assignments enable students to reflect on their own experiences as well as allow the instructors to gain valuable insight into the thoughts and needs of the students.

Personal Roadmap

Each student in CHBE100 will develop a "personal roadmap" to graduation. This roadmap includes a personalized academic plan in addition to planning for participation in undergraduate research, study abroad, internships, co-op, student clubs, campus programs etc, all with the intent of being well-prepared for graduate school or employment at the time of graduation.

Time Management Assignment

This assignment is designed to help students understand how they are spending their time and how they can be more efficient/ effective in the way they organize and devote their time each week.

Faculty Research Summary & Application

In this assignment, students will select a faculty member in CHBE or a related department whose research interests them. After summarizing the research, students will prepare a resume and cover letter that could be used to apply for a position in the research group of interest. Students can apply if desired, but are not required to for this assignment.

Mock Internship Application

In this assignment, students will find an internship that they would be interested in applying for in an upcoming summer. Students will prepare a resume and cover letter towards this position and will also discuss what experience would make their application stronger. Students can apply if desired, but are not required to for this assignment.

Engagement Activities

Students will be asked to document their participation in various engagement activities during the semester such as attending office hours, going to a CHBE student club meeting and attending a resume workshop. A full list of requirements will be provided with the assignment.

Instructor and Student Expectations

Instructor Expectations

Students can expect the instructors to:

- Behave and dress professionally.
- Explain new and previously unlearned concepts and information during lectures and answer questions related to the new concepts.
- Be available by appointment for additional explanation or clarification of concepts covered in lectures, and assistance with assignments and projects.
- Return graded material within reasonable time (minor assignments within a week, major assignments within two weeks).

- Respond to students' course-related emails/discussion board postings within a reasonable amount of time (two business days).
- Address student concerns provided that the concerns are raised in a timely manner, the concerns relate to the class as a whole, and addressing the concerns has a positive impact on student learning.
- Accommodate students with learning disabilities.
- Assist students with their professional development especially as relevant to this course and as reasonably possible.

Student Expectations

Students are expected to:

- Behave and dress professionally.
- Follow the guidelines in this document in matters relating to this course.
- Follow the University's Code of Academic Integrity.
- Come to class prepared by reading any posted handouts in advance, preparing any scheduled presentations in advance and uploading scheduled presentations as instructed.
- Be aware of deadlines and therefore plan ahead.
- Maintain an atmosphere conducive to learning and not disrupt the class, e.g. by arriving and leaving the class on time, raising one's hand before asking questions, and refraining from using electronic devices meant for communication/entertainment in class. (See policy on electronic devices in class below.)

Course Policies

Academic Integrity

The University of Maryland, the Department of Chemical and Biomolecular Engineering (ChBE) as well as the professional societies American Institute of Chemical Engineers (AIChE) uphold and follow the highest ethical standards. The University has a [Code of Academic Integrity \(Links to an external site.\)](#) (hereafter, code) that prohibits students from cheating or consulting their colleagues during exams, cheating or plagiarizing, buying papers, submitting fraudulent documents and forging signatures. Additionally, the [ChBE Department has a policy on academic integrity](#). The instructor will follow the University code and the ChBE policy in all matters relating to academic integrity.

Serious violations of academic integrity are exemplified by, though not restricted to, the following:

- Altering a graded assignment and then requesting regrading. (To prevent this, the instructor will routinely photocopy and file graded assignments.)

- “Copying” an assignment verbatim or with deliberate changes to obfuscate plagiarism, either from a classmate or from previous years’ student solutions without a substantive intellectual contribution to the assignment.
- Using or consulting material to which students do not have authorized access.

Violations of academic integrity or the Honor Code may entail negative consequences on the course outcome and/or disciplinary action. University of Maryland’s standard penalty for an act of academic dishonesty is an “XF” grade with the annotation “failure due to academic dishonesty” on the student’s transcript. More severe penalties and disciplinary action could also be imposed, depending on the intensity of the violation.

Honor Pledge. The University has a student-administered Honor Pledge:

“I pledge on my honor that I have not given or received any unauthorized assistance on this examination.”

which students and teams are asked to write and sign on every exam and assignment. Failure to do so will require the student to confer with the instructor.

Attendance

Students are expected to attend all lectures, submit assignments on time and take all exams in this course. The instructor will follow the [University’s Policy on Attendance and Excused Absences\(Links to an external site.\)](#) as well as the [ChBE Department’s Policy on Medically Necessitated Excuses](#), in all matters relevant to attendance. Students should note the following:

- **All class sessions and assignments are designated as Major Scheduled Grading Events.** Medically necessitated absences at these events must be substantiated by verifiable documentation from a medical professional that is in accordance with the University’s guidelines. Any other University-approved absences at these events also require verifiable documentation. If a student fails to provide documentation in a timely manner, the student will be unable to make up for the missed event. Additionally, students should inform the instructor of absences as soon as possible in case of medically necessitated absences and in advance of the absence for non-medically necessitated absences.
- Students are expected to come to class on time (within 5 minutes of the start time) and will be asked to sign in. Arrival between 5 minutes and 25 minutes after the start of class will be considered late. Late arrival will be excused two times during the semester after which students will lose attendance points for tardiness. If a student arrives more than 25 minutes late for an unexcused reason, this will be counted as an absence.
- Students who are absent due to medically necessitated reasons at two or more lectures or for a prolonged period (three or more consecutive lectures) must also provide verifiable documentation from a medical professional that is in accordance with the University’s guidelines. Failure to provide the documentation in a timely manner will result in not being able to make up for any missed grading events.

- Students who miss any class session or assignment without a legitimate (medically necessitated or University-approved), documented and verifiable reason will not be able to make it up.
- Students who miss class are still responsible for the material covered during the absence and it is recommended that they obtain notes, as appropriate, from classmates.

Absence due to religious observation. If the observation of a religious event occurring during the semester prevents a student from attending class, the student may be allowed to make up for missed exams or HW. However, it is the responsibility of the student to inform the instructor about the projected absence before 10Sep18 or the date of the absence, whichever is earlier.

Inclement weather. In case of inclement weather, the instructor will abide by the University's policy on closures and delays, which will be posted at <http://www.umd.edu>. If the University closes on a class day because of inclement weather, the instructor will update the class regarding any changes to course schedule including assignment due dates.

No Electronic Devices in Class

To maintain an atmosphere conducive to learning, students should not use electronic devices for communication and/or entertainment purposes during class. Such devices include, but are not restricted to cell phones, smart watches, tablets, computers, music players and games. These devices should be put away out of sight in backpacks or pockets, and not kept on a desk or chair. Repeated reminders to put devices away may result in negative class participation points. Students may use watches that do not have communication or entertainment capability. A student with a compelling need for in-class use of an electronic device other than a non-communicative watch should discuss this need with the instructor and obtain the instructor's advance permission to use the device.

The only exceptions to the above policy will be certain class sessions with designated "Computer ON" times. These sessions will be announced in advance. During these sessions, students will be expected to use a computer or an internet browsing device solely for academic purposes.

Late Assignment Policy

Assignments are due at the date and time specified on Canvas. Assignments turned in up to 24 hours late will be subject to a 10% grade reduction. Assignments submitted after this time will not be accepted. Student who have a University-excused absence which precludes on-time submission must email the instructor the relevant information and documentation as soon as feasible after the due date.

Communicating with the Instructor

Email or [Canvas messaging](#) is the best way to reach the instructor. Students can expect a reply to electronic messages within two business days. For their own privacy, students' emails to the instructor should originate from their umd.edu address or University-registered email address

(if different from the umd.edu address). Students cannot expect to receive grades and over email or messaging; these will have to be accessed through the learning management system. When electronically messaging the instructor, please begin the subject line with "CHBE100" and refrain from using text messaging language or other informal language.