CHMB55H3 S 2021 Winter

Environmental Chemistry

Schedule (all interactions online)

Classes: Monday 11:00 - 13:00
Wednesday 11:00 - 12:00
Recording of classes will be posted on Bb Collaborate on Quercus

Office Hours: Monday 15:00 - 16:00
Wednesday 12:00 - 13:00 or by appointment
(Please send an appointment email **at least 48 hours** in advance)

Contact Information

Instructor: Qianwen (Claire) Shi, PhD candidate, qianwen.shi@mail.utoronto.ca
TA: Yuhao (Douglas) Chen, PhD candidate, doug.chen@mail.utoronto.ca
Please contact Qianwen (Claire) if you have any questions or problems. If you have questions about your assignment grades, please contact Yuhao (Douglas).
Email is fine for short questions, but attending office hours is strongly recommended for conceptual issues or long questions. If you are in a different time zone than Toronto local time (EST), you can send an email to the course instructor to schedule office hours.

Course Website

You can access all the course materials on Quercus: https://q.utoronto.ca (use your UTORID). You are responsible for checking this site regularly for announcements and content. Lecture slides will be posted 24 hours prior to each class or right after the class. Assignments will be submitted electronically via Quercus. Term-test will be performed online and the final exam will be a take-home exam.

Textbook

Environmental Chemistry, 5th edition, Colin Baird and Michael Cann, W.H. Freeman & Co., N. Y., 2012. Reading materials outside the textbook will be posted on-line.

Email Policy

- Please use the UTSC account for all your correspondences. If you are using other accounts (Gmail, Yahoo, Hotmail, etc.), your emails will be filtered out as spam and may not be received.
- Please put CHMB55 at the beginning of your email subject.
- Make sure you sign the email with your first and last name and include your student ID number in the bracket.

- We will make all efforts to respond within 48 hours (Monday to Friday) if your email follows the above guidelines.

Grading

4 Written Assignments	40%
Mid-Term Test (online)	25%
Final Exam (take-home)	35%

The assignments include a mix of qualitative and quantitative questions following the topics covered in class. The release and due dates for assignments are listed in the Tentative Schedule section. All assignments are due **at 11:59 pm Eastern Time (ET)** on corresponding due dates. The mid-term is a 90-minute online exam during the Monday lecture hours. The final exam is a take-home exam to be completed in two days.

Late Penalties

Submitted work (Assignments) will be penalized 10 % per day of lateness, to a maximum of 5 days past the deadline.

Absences

Students who miss classes are responsible for making up the missed material. Class recordings will be posted online to allow for asynchronous viewing. Students who require consideration for missed academic work for any reason (e.g., COVID, other illness or injury, family situation) should report their absence through the online absence declaration. The declaration is available on ACORN under the Profile and Settings menu. Students should also advise the course instructor through email of their absence.

Accessibility

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible. I will work with you and AccessAbility Services to ensure you achieve learning goals of this course.

AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Academic Integrity

The University treats cases of cheating and plagiarism very seriously. It is critically important both to maintain our community, which honours the values of honesty, trust, respect, fairness and responsibility and to protect you, the students within this community, and the value of the degree towards which you are all working so diligently. The University of Toronto's Code of Behaviour on Academic Matters (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

According to Section B of the University of Toronto's Code of Behaviour on Academic Matters, it is an offence for students to:

- To use someone else's ideas or words in their own work without acknowledging that those ideas/words are not their own with a citation and quotation marks, i.e. to commit plagiarism.
- To include false, misleading or concocted citations in their work.
- To obtain unauthorized assistance on any assignment.
- To provide unauthorized assistance to another student. This includes showing another student completed work.
- To submit their own work for credit in more than one course without the permission of the instructor.
- To falsify or alter any documentation required by the University. This includes, but is not limited to, doctor's notes.
- To use or possess an unauthorized aid in any test or exam. There are other offences covered under the Code, but these are by far the most common. Please respect these rules and the values which they protect. Offences against academic integrity will be dealt with according to the procedures outlined in the Code of Behaviour on Academic Matters.

Tentative Schedule

The chapters refer to the Baird and Cann textbook Environmental Chemistry 5th edition.

Week	Dates	Topics
1	Mon, Jan 11	Overview of the Course Atmospheric Chemistry (Chapter 1)
	Wed, Jan 13	Stratospheric Chemistry (Chapter 1)
2	Mon, Jan 18	Stratospheric Ozone (Chapter 1) ***Release of Assignment 1***
	Wed, Jan 20	Tropospheric Chemistry (Chapter 3)
3	Mon, Jan 25	Tropospheric Chemistry (Chapter 3)
	Wed, Jan 27	Air Pollution (Chapter 3) ***Due for Assignment 1 (11:59 pm ET)***
4	Mon, Feb 1	Impacts of Polluted Air to Outdoor and Indoor environments (Chapter 4) ***Release of Assignment 2***
	Wed, Feb 3	Impacts of Polluted Air to Outdoor and Indoor environments (Chapter 4)
5	Mon, Feb 8	The Greenhouse Effect (Chapter 5)
	Wed, Feb 10	Greenhouse Gases (GHGs) and Climate Change (Chapter 6) ***Due for Assignment 2 (11:59 pm ET)***
6	**Feb 13 - 19**	**Reading Week**
7	**Mon, Feb 22**	**Mid-Term Test (online test, 90 minutes)**
	Wed, Feb 24	Natural Waters and Water Chemistry (Chapter 10)
8	Mon, Mar 1	Natural Waters and Water Chemistry(Chapter 10)
	Wed, Mar 3	Water Purification and Disinfection (Chapter 11) ***Release of Assignment 3***
9	Mon, Mar 8	Water Purification and Disinfection (Chapter 11)
	Wed, Mar 10	Marine Pollution (Readings will be provided)
10	Mon, Mar 15	Marine Pollution (Readings will be provided)

		Due for Assignment 3 (11:59 pm ET)
	Wed, Mar 17	Toxic Compounds: Toxicology Concepts (Chapter 12 - 15)
11	Mon, Mar 22	Toxic Compounds: Bioaccumulation (Chapter 12 - 15) ***Release of Assignment 4***
	Wed, Mar 24	Toxic Compounds: Bioaccumulation (Chapter 12 - 15)
12	Mon, Mar 29	Toxic Compounds: Environmental Distribution and Fate (Chapter 12 - 15)
	Wed, Mar 31	Toxic Compounds: Environmental Distribution and Fate (Chapter 12 - 15)
	Fri, April 2	***Due for Assignment 4 (11:59 pm ET)***
13	Mon, Apr 5	Wastes, Soils and Sediments (Chapter 16)
	Wed, Apr 7	Soil Contamination and Remediation (Chapter 16)