

CHM 1430S: Advanced Topics in Atmospheric Chemistry

Winter/Spring 2021

Instructors: Jon Abbatt (course co-ordinator), Arthur Chan, Jennifer Murphy

The class will meet online on Wednesdays from 10 am to 12 pm. Please look at Quercus for connection information for each class. As well, please keep Friday from 1 pm to 2 pm free for the FACSS seminar series.

This is an advanced topics seminar course on atmospheric chemistry; CHM415/1415 is a pre-req. The course will be structured around the weekly *Frontiers in Atmospheric Chemistry Seminar Series* (FACSS, facss.mit.edu; [please register for this seminar series](#)).* In the Wednesday class prior to the seminar, the instructor will give a 10 minute introduction to the topic of that Friday's seminar. In the Wednesday class after the seminar, we will discuss 3 or 4 papers on the topic of the prior seminar. The discussion of each paper will be led by one student in the class, using a Powerpoint (or equivalent) presentation. It is expected that every student will read the assigned papers and actively participate in each discussion. As well, by the end of the seminar day, students must post onto Quercus two questions-for-discussion.

The first class is Wednesday, January 13, 10:00 am. There will be a BB Collaborate session (i.e. within Quercus) booked for this class. The first seminar is Tuesday, January 12 at 4 pm.* The final FACSS seminar is on April 9 and so the last class in the course will be April 14.

Grading: 45% presentations, 45% oral participation, 10% posted questions.

Presentations: At a minimum, a presentation presents a clear summary of the main points of the paper, identifying the goals, methods, results, and implications of the work. A good presentation goes further than that – it provides the context for the topic, relates the results to other findings in the literature, provides discussion points for the audience, and critically analyzes the work. One measure of a good presentation is the degree to which it promotes discussion in the class.

Participation: All students have to actively participate in each class – without being called upon to do so. There are many ways to participate, e.g. by asking questions, answering questions posed, and contributing discussion points. Good participation raises the discussion to a higher level. Poor participation arises by either not participating or by dominating the discussion. All discussion must be respectful of all students in the class.

Posted Questions: Try to ask questions that probe the heart of the topic of the seminar. Questions can go beyond the specific content of the seminar and bring in connections to other studies and approaches.

One week off: Students can choose to not participate in the reading and discussion of papers for one week during the semester, so long as that they are not scheduled to present that week.

* - Prior to the start of the MIT seminar series, the first two seminars will be the CGCS talk given by Prof. Jen Murphy at 4 pm on Tues, January 12 (<https://cgcs.physics.utoronto.ca/seminars/distinguished-lectures-series-2020-2021/>) and the departmental colloquium at 10 am on Friday, January 15 (Prof. Linsey Marr). Please register (by contacting Ana Sousa, ana@atmosph.physics.utoronto.ca) for the CGCS seminar series if you have not already.

Preliminary Class Schedule (we will populate this table once the FACSS seminar schedule is finalized)

Week	Instructor intro	Papers/Discussion Leaders	Friday Seminar Speaker/Topic
Jan 13	Jon	N/A	Linsey Marr/ Dept'l colloquium/ aerosol transmission
Jan 20			Jen Murphy/CGCS talk
Jan 27			Susan Anenberg/ health and AQ
Feb 3			Melissa Galloway
Feb 10			Akua Asa-Awuku
Feb 17			Loretta Mickley
Feb 24			Ron Cohen
Mar 3			Cora Young
Mar 10			Shantanu Jathar
Mar 17			Jon Abbatt
Mar 24			Cassie Gaston
Mar 31			Lu Hu
Apr 7			Havala Pye
Apr 14	N/A		N/A