

ATOC 519. ADVANCES IN CHEMISTRY OF ATMOSPHERE.

Credits: 3

Offered by: Atmospheric & Oceanic Sciences (Faculty of Science)

Terms offered: Fall 2025

[View offerings for Fall 2025 in Visual Schedule Builder.](#)

Description

Exploration of the field of atmospheric chemistry that is identified as the significant driver of climate change and the cause of millions of premature death every year. Discussion of cutting-edge novel technologies for observing and quantifying pollutants (from ground to satellite) using artificial intelligence, the fate of emerging contaminants (e.g., nano/microplastics, trace metals, persistent organic), and modelling of atmospheric and interfacial processes. Examination of topics like atmospheric gaseous and multiphase components like bioaerosols. Study of photochemical, photophysical, and aerosol nucleation processes that affect air quality, climate change, and ecosystem health.

- Offered in odd years. Students should register in CHEM 519 in even years.
- Prerequisites: CHEM 213, CHEM 273, MATH 222, MATH 315 or equivalents, or permission of the instructor.
- Restriction: Not open to students who have taken or are taking CHEM 519.
- 3 hours lecture
- Cross linked course: CHEM 519

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

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