EAPS 521/CHM 581 Syllabus

Instructor

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Course Overview

Atmospheric Chemistry

This course is an introduction to atmospheric chemistry. This course is an overview of important gas-phase chemical reactions in the troposphere and stratosphere that impact the composition of the atmosphere.

Required Text

Introduction to Atmospheric Chemistry, *Daniel Jacobs*

Atmospheric Chemistry and Physics, *John Seinfeld and Spyros Pandis*

Electronic copies of both the above textbooks can be found through Purdue Libraries (https://www.lib.purdue.edu/).

Course Resources, Technology

- All of the course material will be available on the course webpage on D2L **Brightspace**. If you are new to Brightspace, please take the time to familiarize yourself with it now.
- All assignments will be set up in Gradescope. You can access them through the course webpage. You can find more information on how to upload your assignment on this page.

Course Outcomes

By the end of this course, you will be able to

- Describe the chemical and physical processes that lead to ozone depletion in the stratosphere
- List key gaseous pollutants in Earth's troposphere
- Describe the basic physical atmospheric processes that influence pollutant concentrations
- List the sources of major atmospheric pollutants
- Describe the fate of important primary pollutants in the troposphere

Assignments and Exams

There will be **6 assignments and 2 exams** in this course. All of them will be posted on the course website. All assignments will be set up in Gradescope. You can access them through the course webpage. You can find more information on how to upload your assignment on this page..

Please submit your assignments by the due date (posted below in the course schedule). See policy regarding late work below.

You are encouraged to discuss, and help each other understand the course material. However, you must individually answer the assignment questions, and uphold academic integrity. What do I mean?

Here are examples of what is acceptable ways to collaborate:

- Clarifying muddy concepts in the course material (lecture slides, scientific articles etc.)
- Discussing the assignments to better understand the questions
- If you end up getting help from someone on an assignment problem, acknowledge them in your submission.

What not to do:

- Copying answers from another person or source
- Allowing someone else to copy your work
- Copying, or submitting someone else's files as yours
- …..
- …… I am sure you understand academic integrity well at this stage of your student life.

Due Dates

Assignments/Exams	Due Date	Percent
Assignment #1	05 September	10
Assignment #2	12 September	10
Assignment #3	26 September	10
Mid-Term Exam	05 October	20
Assignment #4	24 October	10
Assignment #5	07 November	10
Assignment #6	21 November	10
Term Project	03 December	20

Subject to change

Grading

Each assignment is 10%. All assignments will be due at the end of the due date (11:59 PM). Midterm exam is 20%. Exams will be administered in the assigned classroom. The end-of-term project will be completed in teams, and will contribute to 20% of the final grade. That brings the total to 100%.

Grading scale:

A+	97 - 100 points
A	94 - 96 points
A-	90 - 93 points
B+	87 - 89 points
B	84 - 86 points
B-	80 - 83 points
C+	77 - 79 points
C	74 - 76 points
C-	70 - 73 points
D+	67 - 69 points
D	64 - 66 points
D-	60 - 63 points
F	Below 60 points

Nondiscrimination Statement

Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. More details are available on our course Brightspace table of contents, under University Policies.

Diversity Statement

The Department of Earth, Atmospheric, and Planetary Sciences supports an inclusive learning environment where students from diverse backgrounds and perspectives can be successful. Dimensions of this diversity can include sex, race, age, national origin, ethnicity, gender identity and expression, intellectual and physical ability, sexual orientation, income, faith and non-faith perspectives, socio-economic class, political ideology, education, primary language, family status, military experience, cognitive style, and communication style. In line with our departmental goals, we disavow all racism, xenophobia, homophobia, sexism, Islamophobia, anti-Semitism, classism, ableism, and hate speech or actions that attempt to silence, threaten, and degrade others. It is my intent

to be respectful of this diversity, and to oppose actions that diminish it, as here in EAPS we embrace the notion that such diversity enriches and enhances our intellectual community.

My preferred pronouns are she/her/hers. I wish to respect each of your identities and want to refer to them correctly. I encourage you to share this information when introducing yourself in class, if you feel comfortable doing so. Also, when introducing yourself in class or when communicating via email, please indicate if you have a preferred name which may differ from the information listed on Brightspace, if you feel comfortable doing so.