

ATM 421: Tropical Meteorology Spring 2025

Instructor: Prof. Kristen Corbosiero, ETEC 413, 442–5852, kcorbosiero@albany.edu

Class hours: Tuesday and Thursday, 12–1:20 PM, ETEC 450

Office hours: Monday 2–3 PM, Tuesday 10–11 AM, Wednesday 1–2 PM, by appointment
<https://albany.zoom.us/j/93670541812?pwd=aVVQUzB5V3pOWmpKVkNYOXBCZE5DZz09>

Meeting ID: 936 7054 1812

Passcode: MJO

T.A.: Evan Belkin, ETEC 474, ebelkin@albany.edu, Monday 3–4 PM & Wednesday 11:30 AM–12:30 PM

Class web site: <http://www.atmos.albany.edu/daes/atmclasses/atm421>

Online textbook: http://www.meted.ucar.edu/tropical/textbook_2nd_edition/index.htm

Grading: Quizzes (25%); Final exam (20%); Midterm exam (20%); Homework assignments (20%); Map discussion (10%); Class participation (5%)

Class objectives: The goal of this course is to describe the behavior, dynamics, and thermodynamics of the tropical atmosphere. A wide range of time and space scales will be examined, from the large-scale energy balance down to cumulus convection and tropical cyclones. Special attention and emphasis will be placed on the interactions between dynamics and convection.

Topics:

- Observational overview of the tropics
- Tropical convection
- Large-scale tropical circulations and monsoons
- Equatorial waves
- The Madden-Julian Oscillation
- Tropical cyclogenesis
- Tropical cyclone thermodynamics, fluxes, and convection
- Tropical cyclone structure and intensity change

Class format and attendance:

This is a fast-paced, rigorous class; unexcused absences are not acceptable and class attendance/participation is expected. Make-up exams and quizzes will not be given except for an illness documented by a physician, official college-sponsored activities with appropriate documentation, or a death in the immediate family. Homework assignments that are turned in late will be subject to a 10% deduction in grade per day late.

This being said, we are still living through the aftermath of a global pandemic. I want you to enjoy taking and learning in this class (because I love teaching it!) and we're going to practice and extend as much patience, flexibility, and compassion as possible this semester. Please let me know as soon as possible if you start to experience difficulties related to school, work, family, etc., and I will work with you to find solutions. For example, if you feel sick or need to miss class, please let me know. I have recorded lectures, which can be shared, and/or class can be streamed.

Absence due to religious observance: Any student who is unable, because of their religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination, study, and/or work requirements. Please notify me in a timely manner of any upcoming absences and see NY State Education Law Section 224-A for further details: <https://www.nysenate.gov/legislation/laws/EDN/224-A>.

Academic integrity: Cheating and plagiarism are unacceptable and will result in a zero for this class and can potentially result in suspension from the University. It is every student's responsibility to become familiar with the university's standards of academic integrity. The following university website provides additional information:

http://www.albany.edu/undergraduate_bulletin/regulations.html.