
ATMS-324: FIELD STUDIES OF CONVECTION

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Important Dates - Trip 1:

Forecast lecture/discussion: Monday, May 18 - Wednesday, May 20, 9:30am - 12:00pm

Mandatory Pre-Trip Briefing: Wednesday, May 20, 2:00pm (Tentative)

Trip Dates: Thursday, May 21 - Wednesday, June 3 (may vary slightly depending on weather)

Class Presentations: Thursday, June 4, 9:30am-12:00pm

Important Dates - Trip 2:

Forecast lecture/discussion: Monday, May 18 - Wednesday, May 20, 9:30am - 12:00pm

Mandatory Pre-Trip Briefing: Friday, June 5, 2:00pm (Tentative)

Trip Dates: Saturday, June 6 - Friday, June 19 (may vary slightly depending on weather)

Class Presentations: Monday, June 22, 9:30am-12:00pm

All classroom meetings will be held in room 109 Atmospheric Sciences Building.

Credits: 2 hours

Course Fee: \$1300

Prerequisites: ATMS-201 (General Physical Meteorology)

Required Text: None.

Optional Texts:

Severe and Hazardous Weather, 3rd Edition, by Robert Rauber, John Walsh, and Donna Charlevoix. ISBN 978-0-7575-5041-6.

Mesoscale Meteorology in Midlatitudes, by Paul Markowski and Yvette Richardson. ISBN 978-0-4707-4213-6.

Course Description: This course allows students to directly forecast, nowcast, and observe deep moist atmospheric convection and its associated phenomena. Since weather patterns are not fixed, the most efficient way to observe this convection will be to travel to where it is most likely (which is a function of the large-scale weather pattern). Students will be expected to actively participate in daily morning and evening weather forecast discussions, during which our destination for the day and our plan of travel for the coming days will be determined. Other educational activities, such as visits to research labs like the National Severe Storms Laboratory or the National Center for Atmospheric Research, National Weather Service Forecast Offices, the Atmospheric Radiation Measurement site, or other similar activities, may be conducted at the discretion of the instructor if it is determined that the trip is unlikely to observe atmospheric convection on a particular day. All students are required to participate in all activities and are expected to have at least a basic knowledge of weather analysis and forecasting and of the structure and behavior of various modes of atmospheric convection before enrolling in this course. Following the return from the trip, all students will be expected to give a 15-minute oral presentation about one specific date from the trip, including routing and navigation, types of convection observed (including photographs), forecast skill and quality, and knowledge learned. *Due to the inherent variability and unpredictability of the weather, there is no guarantee that any particular type of weather will be observed.* Prior to departure, all students will be required to sign a liability release approved by the Office of Risk Management.

Cost Information: The mandatory course fee (\$1300) covers lodging (double occupancy, segregated by gender), van rental, gasoline, and vehicle maintenance. The course fee does NOT cover students' food, activities after hours, souvenirs, or any of the instructors' expenses. Any unused portion of student fees will be equally returned to the students' accounts at the conclusion of the summer.

Course Websites: The instructor will be posting photographs and other information related to the field trip on the Internet as time permits. Students are expected to share their photographs with the instructor (Facebook is **not** acceptable) and fellow students for a more complete educational experience when they are discussed and interpreted after the trip.

Grading: Students will be evaluated based on their participation during forecast discussions held during the trip, attendance and punctuality for all class meetings, quality of final oral presentations, and behavior during the trip. Based on student performance, they will receive a satisfactory/unsatisfactory (S/U) grade for the course.

Respect: You will treat other students and the instructor with respect and will ensure that the trip is a good learning environment for all students. While on the trip, you are expected to be good representatives of the University of Illinois and abide by all federal, state, and local laws.