

Meteorological Measurement Laboratory

Meteorology 433X - Spring 2022

Class meetings: Lecture - Monday, 3:20-4:10 pm;
Lab - Wednesday, 3:20-5:10 pm,

Location: 3128 Agronomy Hall

Instructor: Mr. Dave Flory

Office: 3101 Agronomy Hall

Phone: 294-0264

Email: flory@iastate.edu

Office hours: By appointment.

Text

None

Web Site: <http://www.meteor.iastate.edu/classes/mt433>

Course Goal

- Learn about meteorological instrumentation, data collection, and analysis through an interactive, lab based approach.

Student Learning Outcomes

- Obtain an understanding of the theories and practices used in measuring and analyzing atmospheric variables.
- Obtain an understanding of modern weather stations, their function, and their use to acquire data.
- Properly analyze and evaluate data from modern weather stations to address scientific questions.

Grading

65% Lab exercises/homework

35% Semester project

You are welcome to question/dispute any grades up to one week after posting. After one week, all marks are final. This approach ensures the grading method used by the instructors is fresh in their minds when evaluating any potential corrections.

Important Dates

January 17: University Holiday

March 14: Midsemester

March 14 - 18: Spring break

March 31 – April 2: NWA Severe Storms and Doppler Radar Conference

Topics Include:

Introduction to data loggers and modern weather stations
 Static performance characteristics (static sensitivity, transfer plots, calibration)
 Dynamic sensor performance (time constants)
 Barometry, precipitation, and wind measurements
 Field visit to NLAE research site
 Weather station setup

COVID-19

• **Face Masks Encouraged:** All students, faculty, staff, and visitors to campus are encouraged to wear face masks in all indoor spaces when around others. Unvaccinated individuals are encouraged to wear a face mask anywhere they are around others, and to practice physical distancing when possible <https://web.iastate.edu/safety/updates/covid19>.

• **Vaccinations Encouraged:** All students are encouraged to receive a vaccination against COVID-19. Multiple locations are available on campus for free, convenient vaccination. Further information is available at:

<https://web.iastate.edu/safety/updates/covid19/vaccinations>

Vaccinations may also be obtained from health care providers and pharmacies.

• **Physical Distancing Encouraged for Unvaccinated Individuals:** Classrooms and other campus spaces are operating at normal capacities, and physical distancing by faculty, staff, students, and visitors to campus is not required. However, unvaccinated individuals are encouraged to continue to physically distance themselves from others when possible.

Free Expression

Iowa State University supports and upholds the First Amendment protection of freedom of speech and the principle of academic freedom in order to foster a learning environment where open inquiry and the vigorous debate of a diversity of ideas are encouraged. Students will not be penalized for the content or viewpoints of their speech as long as student expression in a class context is germane to the subject matter of the class and conveyed in an appropriate manner.

Classroom Disruption

At the discretion of the instructor, disruptive conduct includes a single serious incident or persistent conduct that unreasonably interrupts, impedes, obstructs, and/or interferes with the educational process. Disruptive conduct may be physical and/or expressive in nature and may occur in person or in a virtual setting. Disruptive conduct includes, but is not limited to the following: receiving texts or cell phone calls during class, leaving class early or coming to class habitually late, eating in class, talking out of turn, doing assignments for other classes, reading the Iowa State Daily, sleeping, and engaging in other activities that detract from the learning experience. Any continued disruption of class will result in a report to the Office of Student Conduct in the Dean of Student's Office for a possible ISU Code of Student Conduct infraction. After one warning, if the disruption continues, you will be asked to leave the learning space for the remainder of class.

Academic Dishonesty

The class will follow Iowa State University's policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office.

Accessibility Statement

Iowa State University is committed to assuring that all educational activities are free from discrimination and harassment based on disability status. Students requesting accommodations for a documented disability are required to work directly with staff in Student Accessibility Services (SAS) to establish eligibility and learn about related processes before accommodations will be identified. After eligibility is established, SAS staff will create and issue a Notification Letter for each course listing approved reasonable accommodations. This document will be made available to the student and instructor either electronically or in hard-copy every semester. Students and instructors are encouraged to review contents of the Notification Letters as early in the semester as possible to identify a specific, timely plan to deliver/receive the indicated accommodations. Reasonable accommodations are not retroactive in nature and are not intended to be an unfair advantage. Additional information or assistance is available online at www.sas.dso.iastate.edu, by contacting SAS staff by email at accessibility@iastate.edu, or by calling 515-294-7220. Student Accessibility Services is a unit in the Dean of Students Office located at 1076 Student Services Building.

Prep Week

This class follows the Iowa State University Prep Week policy as noted in section 10.6.4 of the Faculty Handbook.

Discrimination and Harassment

Iowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. Veteran. Inquiries regarding non-discrimination policies may be directed to Office of Equal Opportunity, 3410 Beardshear Hall, 515 Morrill Road, Ames, Iowa 50011, Tel. 515-294-7612, Hotline 515-294-1222, email eooffice@iastate.edu.

Religious Accommodation

Iowa State University welcomes diversity of religious beliefs and practices, recognizing the contributions differing experiences and viewpoints can bring to the community. There may be times when an academic requirement conflicts with religious observances and practices. If that happens, students may request reasonable accommodation for religious practices. In all cases, you must put your request in writing. The instructor will review the situation in an effort to provide a reasonable accommodation when possible to do so without fundamentally altering a course. For students, you should first discuss the conflict and your requested accommodation with your professor at the earliest possible time. You or your instructor may also seek assistance from the Dean of Students Office at 515-294-1020 or the Office of Equal Opportunity at 515-294-7612.

Contact Information

If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.