

# ATMO 251 - Weather Observation and Analysis

## Fall 2007

**Lecturer:** M.E. Alcorn, office 1208, phone 845-4329  
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**Teaching Assistant:** Kevin Viner, room 1013

**Assistance:** My office hours are posted on my office door, room 1208B, or see me after class to make an appointment.

**Primary Text:** The course text is online at <http://www.met.tamu.edu/class/ATMO251>.

### **Required Info:**

**Copyrights:** The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.

**Plagiarism:** As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

**The Aggie Honor Code** states: "An Aggie does not lie, cheat, or steal or tolerate those who do." Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. Anyone who violates the University rules on academic honesty will receive an "F" for the course and additional sanctions as described in the University Regulations.

If you have any questions regarding plagiarism and academic dishonesty, please consult the latest issue of the *Texas A&M University Student Rules*, under the section "Scholastic Dishonesty." Or, see <http://www.tamu.edu/aggiehonor/>.

**The Americans with Disabilities Act (ADA)** is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 118B of Cain Hall. The phone number is 845-1637.

**Grading:**

**Laboratory assignments:** A straight letter grade with meanings as defined in the course catalog: A=excellent, B=good, C=satisfactory, D=passing, F=failing, will be assigned to laboratory work. Laboratory assignments are due at the end of the laboratory session unless otherwise stated.

**Homework assignments:** Homework assignments will be assigned throughout the semester and the student will have at least 5 days to complete the assignment. Homework grading will be based on the number of points assigned to each problem. The total points earned / total points possible will be used toward the class grade.

**Examinations:** Numerical grades will be converted to letter equivalents based on level of performance. All exams are closed book, closed notes. Exam dates are indicated on the class schedule. The final exam is comprehensive.

**Class Grade:** The average grade for laboratory assignments and exams is converted to a numerical value using: A=100, B=87, C=74, D=61, and F=48. The average grades are then weighted as follows: 35% for laboratory assignments, 20% from homework, 20% for each exam, and 25% for the final exam. For homework, 20% of the total points received / total points possible will be used toward the class grade. The total is then converted to a final grade using: 90-100=A, 80-89.9=B, 70-79.9=C, 60-69.9=D, <60=F.

**Lecture and Lab Schedule**

Aug. 27	Monday	Chapter 1. Ways of Seeing the Atmosphere
Aug. 29	Wednesday	Chapter 2. Point Observations
LABORATORY		Chapter 4. Map analysis
Sep. 3	Monday	Chapter 2. Point Observations continued.
Sep. 5	Wednesday	Chapter 3. Space, Time, and Motion
LABORATORY		Map Analysis.
Sep. 10	Monday	Chapter 3. Space, Time, and Motion continued.
Sep. 12	Wednesday	Chapter 5. Soundings
LABORATORY		Advection.
Sep. 17	Monday	Chapter 5. Soundings, continued.
Sep. 19	Wednesday	Chapter 6. Remote Sensing
LABORATORY		Skew-T diagram.
Sep. 24	Monday	Chapter 6. Remote Sensing, continued.
Sep. 26	Wednesday	<b>Exam 1</b>
LABORATORY		Vertical Cross Section.
Oct. 1	Monday	Chapter 7. Vector Calculus
Oct. 3.	Wednesday	Chapter 7. Vector Calculus, continued.
LABORATORY		Map Analysis.
Oct. 8	Monday	Chapter 8. Coordinate Systems
Oct. 10	Wednesday	Chapter 8. Coordinate Systems, continued.
LABORATORY		Streamlines
Oct. 15	Monday	Chapter 9. Advection and Convergence
Oct. 17	Wednesday	Chapter 9. Advection and Convergence, continued.
LABORATORY		Surface Analysis.

Oct. 22	Monday	Chapter 10. Geostrophic Balance
Oct. 24	Wednesday	Chapter 10. Geostrophic Balance, continued.
LABORATORY		Jet stream analysis.
Oct. 29	Monday	<b>Exam 2</b>
Oct. 31	Wednesday	Chapter 11. Imbalance and Vertical Motion.
LABORATORY		Surface analysis.
Nov. 5	Monday	Chapter 11. Imbalance and Vertical Motion, continued
Nov. 7	Wednesday	Chapter 12. Atmospheric Structure and Thermal Wind.
LABORATORY		Upper-air analysis.
Nov. 12	Monday	Chapter 12. Atmospheric Structure and Thermal Wind, continued
Nov. 14	Wednesday	Chapter 13. Fronts.
LABORATORY		Surface analysis.
Nov. 19	Monday	Chapter 13. Fronts, continued
Nov. 21	Wednesday	Chapter 14. Vorticity and Potential Vorticity
LABORATORY		NO LAB. Happy Thanksgiving.
Nov. 26	Monday	Chapter 14. Vorticity and Potential Vorticity
Nov. 28	Wednesday	Reading day – no class.
LABORATORY		Surface and upper-air analysis.
Dec. 3	Monday	Redefined Day. Attend Friday Classes – NO LAB
Dec. 4	Tuesday	Redefined Day. Attend Thursday Classes – NO LAB.
Dec. 11	Tuesday	Final Exam, 8:00 – 10:00