

Earth Space and Atmospheric Sciences 2116

Advanced Weather Analysis and Forecasting I

Professor Paul L. Sirvatka
College of DuPage
Spring 2014

- Description:** A continuation of Weather Analysis and Forecasting II. Emphasis is on independent analysis of weather events, forecast preparation, and mastery of hand data analysis. Taking advantage of a fully-operational weather laboratory, students monitor current weather conditions locally and across the nation.
- Prerequisite:** Earth Science 1117; Math 0481 with a grade of C or better, or a qualifying score on the Math Placement Exam.
- Phone/Office:** Office: (630) 942-2118 BIC 3501
Lab: (630) 942-2590 BIC 3500
E-mail: sirvatka@weather.cod.edu; sirvatka@cod.edu
Homepage: <http://weather.cod.edu/>
- Office Hours:** MW 2:00-4:30PM; TuTh 10:00-11:00; TuTh 3:30-4:30; F 2:00-3:00
I will also be available at other times. Please try to set up an appointment if you wish to see me at any time. Please feel free to contact me with questions using email as well.
- Text:** Weather Analysis and Forecasting Handbook, Tim Vasquez. (You may order on-line at <http://www.weathergraphics.com/>)
- Additional Materials:** Good colored pencils (at least red, blue, yellow and green) are required *daily*.
- Attendance:** Attendance is mandatory and a significant part of your grade. Each student is allowed only one absence during the term without penalty. Absences beyond the one excused will result in a **4-point deduction**. Late attendance will also be penalized with a 2-point deduction.
- Grading:**
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| Class participation | 20 points |
| Class attendance | 30 points |
| Forecast contest | 20 points |
| Quizzes and assignments | 10 points |
| Written Forecast | 20 points |

Grades will be *straight scale*. Your grade will be based upon attendance and participation, and successful completion all assignments and forecasts. All work must be completed. An incomplete will be given only in an exceptional circumstance. It is the student's responsibility to withdraw from the course due to non-attendance. This must be done by April 17. Failure to withdraw by that date will result in an "F". Late assignments will be penalized to a maximum credit of 50% at the discretion of the instructor. Students wishing to take this course on a pass/fail basis must earn a grade of a "C" or higher to receive a "Satisfactory" for the course. In order to fulfill the general education requirements a letter grade must be received.

Course Objectives: Upon successful completion of this course the student should be able to do the following:

1. Demonstrate familiarity with the College of DuPage NEXLAB web site
2. Diagnose the current conditions of the atmosphere
3. Prepare short term forecasts based upon current conditions alone
4. Analyze numerical models and synthesize a five day forecast
5. Appraise strengths and weaknesses of each numerical model in a given scenario
6. Construct formal public forecasts

Expectations: The student is expected to attend all classes, participate fully in classroom discussions and cooperate in learning experiences with other classmates. The class will meet twice weekly for lecture and weather discussion. Additional participation on a mail-list is also expected. Failure to participate will result in a lowering of your grade. 4 forecasts must be prepared and written for codfcst. These forecasts must be completed throughout the whole semester, approximately one every three weeks. Students will also be expected to participate in the National Forecasting Challenge (www.wxchallenge.com) from January 27-April 3. A student is required to submit four forecasts per week during that time (M-Th). Each missed forecast is a 1-point deduction. More details will be given later in the term.

Culminating Activity: A final activity will be given during Finals Week. Check MyAccess at <https://myaccess.cod.edu/> for a listing of the final schedule.

Class Reading: Read the pages as listed below and write or type an outline of those pages. Include full sentences and all pertinent information. This assignment will be due completely February 17, 2014.
Weather Analysis and Forecasting Handbook Chapters 1, 2, 4, 5, 7, 8

Discussion Board: All students are expected to participate in the College of DuPage WxChallenge Facebook page and on the CODFCST Facebook page. Participation (or lack thereof) on these pages will affect your participation grade.

Advising: Please feel free to speak to me concerning school plans and classes to take, whether or not you are involved in meteorology as a major. I will be more than happy to discuss anything related to school or anything else in your life that might be a problem or obstacle to your success.