In this course, you will learn the basic principles of synoptic meteorology and weather forecasting, analyze hourly weather data and numerical weather prediction models.

Assignments

There will be 5 assignments during the first 2 weeks of the course. Each assignment will typically have 3 parts: a reading with questions, an analysis of current weather, and a case study. Assignments must be turned in on time. If there are extenuating circumstances, consult Dr. Illari.

Forecasts

During the final week of the course you will be working on the Boston Forecast Contest. You will produce 4 short-range forecasts for Boston from Tuesday to Friday. You will submit the following day’s forecast with an online interface by 7pm each night as part of a 12.310 forecasting competition. A weather related prize will be awarded to the top finisher. Students who fail to make all 4 forecasts on time will be disqualified from the competition.

In small groups, you will create a brief “TV-style” forecast presentation for a US city that is assigned to you. Each group member should present 1 or 2 slides (PowerPoint or something even more creative that we haven’t thought of). You will be expected to turn in your slides as part of Assignment 6.

Grading

The course carries 6 units of credit, graded P/D/F. In order to pass the course, we expect you to:

- complete all 5 assignments satisfactorily
- produce all 4 Boston weather forecasts (including the online workup sheets)
- participate in the field trip to WBZ –TV station
- participate in a TV-style forecasting presentation

We also expect you to attend all 9 sessions. If you cannot come to one of the classes, please email illari@mit.edu.