Course:
Atm 350 Meteorological Data Analysis and Visualization Spring 2016
Class Number: 7226; Credits: 2

Schedule:
T, Th 1:15 p.m.–2:35 p.m., ES 333 (Maproom)

Instructors:
Kevin Tyle, ES 235, 442–4578, ktyle@albany.edu
Office hours: MoWe 2:00 p.m.–3:00 p.m. and by appointment
Ross Lazear, ES 322, 437–3601, rlazear@albany.edu
Office hours: MoTh 2:45 p.m.–3:45 p.m. and by appointment

Prerequisites:
ATM 211, ATM311

Grading:
One 80-minute exam (1/5 of final grade); Case Study Presentation (1/5 of final grade);
Labs (3/5 of final grade)

Scope of Course:
This course provides an overview to the main types of meteorological datasets used by
operational forecasters, researchers, and numerical weather prediction modelers. Students
will master a variety of software applications used to display and manipulate these datasets.
The course will primarily focus on software developed for UNIX operating systems; there-
fore, students will learn the basics of the UNIX command shell environment, via an in-
troduction to common UNIX commands, as well as simple shell scripting. Real-time and
historical weather datasets will provide the context for the exploration of both the software
applications and the UNIX environment.

The course will mostly be conducted with classroom lectures (Tuesdays) and computer
labs (Thursdays), although certain weeks may warrant some variation in the lecture–to–
lab ratio. Five or six graded lab assignments will be assigned and worked on during
the Thursday lab periods and will typically be due by the time of the following week’s
Thursday class. Every homework assignment will have equal weight in the determination
of the overall homework score, which will account for 60% of the student’s final course grade
(thus, each assignment will be worth 10–12% of the final course score). There will be one
exam during the semester. This exam accounts for one-fifth of the student’s final grade.
During the final two class periods, each student will make a 5-10 minute oral presentation
of a meteorological case study using the techniques learned in class; this presentation will
also account for 1/5 of the student’s final grade.

Lab assignments will be available via the course website at the beginning of the Thursday
lab in which they are assigned, and will be due the following Thursday at 1:15 PM, unless
otherwise directed. For the first 24 hours that the assignment is turned in late, two points will be deducted from the maximum total of ten. Each successive day (including weekends) that the assignment is tardy will entail an additional one point loss. Since assignments will typically be "turned in" electronically, each file will automatically have a timestamp, to avoid any questions of the time the student completed the homework. The instructor reserves the right to make exceptions to the tardiness policy if the situation warrants. Students are encouraged to log into one of the maproom computers, or their own personal computer, during class in order to interactively follow along with the presented material.

It is expected though that during class time, computer use will be restricted to ATM350-related material, not private web surfing, social networking, etc.

CELLPHONE use (including text messaging) is NOT ALLOWED during classtime, nor are students allowed to leave the room to take/make personal phone calls. This will ensure a focused, non-distracting classroom environment.