

Introduction to Meteorology 11:670:101 Section 1
Course Syllabus and Class Schedule
Fall 2016

Thursdays, 6:40 to 9:30 pm, Tillett Hall 257

Instructor Contact Information:

Dr. John Krasting E-mail: john.krasting@rutgers.edu
Phone: 609-759-0039
Office hours by appointment only

Course Description:

This course provides an overview of current weather maps; the structure of the atmosphere; the role of moisture in the development of dew, clouds, and precipitation; air masses, fronts, cyclones, thunderstorms, tornadoes, and hurricanes; and elements of weather forecasting, instrumentation and communication.

Prerequisites: None
Credits: 3 hours
Satisfies: Gen Ed for Physical Sciences (Area II) for SEBS student
SAS core curriculum for Natural Sciences (Area II) for SAS students

Course Learning Goals:

Upon completion of the course, students will be able to:

1. Exhibit critical thinking when confronting new information
2. Interpret basic weather forecasts as presented on television/radio/Internet
3. Explain basic atmospheric phenomena from a physical perspective
4. Apply the physical foundations of meteorology to solve problems using analytical methods
5. Know whether they might enjoy pursuing further study in the atmospheric sciences.

This course also satisfies these SAS Core Curriculum Learning Goals:

II: Areas of Inquiry

A: Natural Sciences

- e. Understand and apply basic principles and concepts in the physical and biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.
- z. ITR (technology)



Learning Resources:

Required Textbook:

Ahrens, D.C. Essentials of Meteorology : An Invitation to the Atmosphere. 7th edition
Available at the Rutgers University Bookstore: <http://bit.ly/2bRtwWI>
(Earlier editions may vary slightly. Study guide not required.)

Webpage:

Sakai will be used for the course website. From Sakai you can obtain Exam grades, resources, announcements, chat room, etc. <https://sakai.rutgers.edu/portal>

Lectures:

Each class will begin with a short weather discussion based on real-time observations, satellite, radar, and computer model data. The weather discussions are intended to show how the concepts taught in the course play out in the real world. The discussions are an opportunity to talk about current weather events and show how meteorology impacts the natural world and human society.

There will be a reading assignment for each lecture that should be completed prior to coming to class. The remainder of each class will be devoted to the topics covered in the reading assignment. The format of the lectures will be open and students are highly encouraged to think critically about the course material, ask questions, share their thoughts and opinions, and participate in discussions.

Extra assistance:

This course will use the Piazza website for asking questions. If you have a question, please post it to the course page at:

<https://piazza.com/rutgers/fall2016/introtometeorology01f16/home>

With this large of a class, other students will benefit from hearing your question and you will also have to opportunity to help and interact with your fellow students.

Email (john.krasting@rutgers.edu) is also available for asking questions. Students may arrange office hours with the instructor by request. Students may also form study groups and are encouraged to study together.

How you will be evaluated:

Exams:

There will be four (4) exams, each contributing 22.5% to your total course average. The exams will be based on the materials presented in the lectures and in the course textbook. The exams are “stand-alone” and are not cumulative.

The exams will be multiple-choice format. Students are required to bring a calculator for the exams, but “smart phones” are strictly prohibited.

There are no make up or rescheduled exams. Missed exams will only given a make-up with an appropriate letter from your Dean or your personal physician.

The remaining 10% of the course grade will be based on class participation. Students are required to register for the Piazza website (<https://piazza.com>) and download the Piazza device to their smartphone, tablet, or laptop. Questions/polls will be asked during lectures and a 75% participation rate or better is necessary to achieve the full amount of credit for class participation.

Students can sign up for the course page on Piazza with this link:
<https://piazza.com/rutgers/fall2016/introtometeorology01f16>

Course Grade Breakdown:

Exam 1:	22.5%
Exam 2:	22.5%
Exam 3:	22.5%
Exam 4:	22.5%
Participation:	10%
<hr/>	
Total:	100%

Homework

There are no graded homework assignments for the course, but additional learning outside of the classroom is expected. It will be difficult to perform well on the exams without additional preparation and review of the course materials. Students should be able to answer the study questions at the end of each chapter in the text. Any questions that are too difficult can be discussed in office hours or over email.

Course Policies:

Classroom Courtesy:

You are expected to be respectful of fellow students and me. Examples of courtesy include:

- Making every effort to attend lectures
- Doing the reading assignments ahead of time
- Coming to class prepared to discuss the materials
- Turning off cell phones and other sound-making devices before class
- Not distracting your classmates by talking or making other noises
- Not surfing the web or checking email or texting
- Not eating or drinking

Academic Integrity:

The University policy about academic integrity can be found at website <http://academicintegrity.rutgers.edu/>. Academic dishonestly will not be tolerated.

Special Needs:

To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require reasonable accommodations to participate in this class are asked to see the instructor as soon as possible with the appropriate documentation.