

Introduction to Meteorology I
METR 2013.002 (Honors)
Professor Jerry Straka
Fall 2014

General Information

This course is a qualitative and quantitative introduction to Atmospheric Thermodynamics and Atmospheric Physics as they relate to weather and climate interpretation and prediction.

It is the intent of the instructor to prepare you as well as possible for the core curriculum in the School of Meteorology at the University of Oklahoma. The difficulty level of the material is designed for mathematically prepared, students majoring in meteorology that are in the Honors Program at OU. The goal is to teach you how to explain to yourself the physical and mathematical essence of selected topics in atmospheric thermodynamics and atmospheric physics. I will provide you with the physical and theoretical basis for these topics. In summary, you will work through both the physics and mathematics of the course content to get a rounded respect for the close connection of physical explanations and mathematics in meteorology.

To get the most benefit from this class that you possibly can, as it is small class, it is important that each of you come prepared for each lecture (I will provide weekly reading and writing assignments well before each week's lectures). Also, don't be afraid to think out problems with me during lecture through participation (I will encourage this using the Socratic 'teaching' method).

Professor Information

Instructor: Professor Jerry M. Straka
Office Room: NWC 5331
Office Phone: 325-5503 (cell for emergency: 405-664-3907)
E-Mail: jstraka@ou.edu or jmstraka@cox.net
Skype: jerry.straka

Class Room Information

Class Room: NWC 5820
Class time: T/Th 10:00AM-11:15AM (19 AUG 2014 – 05 DEC 2014)
Office hours: Regularly on T/Th from 9:20AM-10:00AM
By appointment with 24 h e-mail notice
Short notice with Skype
E-mail (I typically respond pretty quickly)

Grading

Writing Summaries:	05% (15 writing summary assignments)
Homework:	10% (10-15 homework assignments)
Research Paper (Thursday 13 Nov 2014):	10% (research paper assignment)
Quiz #1 (Thursday 11 Sep 2014):	15%
Quiz #2 (Thursday 02 Oct 2014):	15%
Quiz #3 (Thursday 23 Oct 2014):	15%
Quiz #4 (Thursday 13 Nov 2014):	15%
Final Exam (Tuesday 09 Dec 2014):	15% (Take-home; turn in electronically by 10AM)

	100%

Note: The four 40 minute quizzes are four questions, and you answer the three questions on each that you feel you can answer the best (the questions will be doable in the time allotted if you stay prepared). Immediately after each of the quizzes (during same class period that you take the quizzes), I will give you detailed answer keys and spend 30 to 40 minutes covering the answers.

Scores and Grades (I don't use a curve)

91-100	A
81-90	B
71-80	C
61-70	D
≤ 60	F

Books:

- Mandatory:
- 1) A First Course in Atmospheric Thermodynamics;
(Grant Petty, 1st edition, 2008)
- Suggested:
- 2) Atmospheric Science An Introductory Survey (great book)
(Wallace and Hobbs, 2nd edition, 2006)
 - 3) Atmospheric Thermodynamics (excellent and very detailed)
(Bohren and Albrecht, 1st edition, 1998)
 - 4) Atmospheric Thermodynamics (excellent and classic)
(Iribarne and Godson, 2nd edition, 1981)
 - 5) Introduction to Theoretical Meteorology (excellent and classic)
(Seymour Hess, 1st edition, 1979)

Much of the course will be based upon these as well as thermodynamic books from other fields. I provide detailed lecture notes online, so you don't need the suggested books. I do, however, like all of them very much (you can look online to buy them). When I was at the stage in my education that you are presently are we the books by Seymour Hess' and Wallace and Hobbs'.

Student Responsibilities:

“Students are responsible for the content of courses in which they are enrolled. Specific policies concerning attendance requirements and announced and unannounced examinations are the responsibility of the individual instructor. Students have a responsibility to inform faculty prior to absences whenever possible. Faculty should make every effort to find a reasonable accommodation for students who miss class as a result of participation in Provost-approved University-sponsored activities legally required activities such as emergency military service. Students missing class on account of jury duty must receive such an accommodation.” From Faculty Handbook 2009-10. “It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required classwork that may fall on religious holidays.” (From <http://www.ou.edu/content/dam/provost/documents/University-Policies-Regarding-Instruction.pdf>)

Homework Policy:

Homework and writing assignments absolutely are due on the day assigned. You must do all of your assignments alone. If you have questions ask me not your classmates. All writing must be your own, original writing. Graded homework, writing, and tests will be returned in less than two weeks, and often by the next class period. All homework and writing assignments must be turned in to me via email before 5:00pm LST. If you don't have a computer, scanner and internet, take your work to the front office and they will scan and email it to me.

Accommodations:

The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD 405/325-4173.

“The Disability Resource Center provides support services to students with disabilities. The office is committed to the goal of achieving equal educational opportunity and full participation for students with disabilities. In many cases, these services have been developed in response to expressed student needs. The Disability Resource Center sends all accommodation requests to faculty via their OU e-mail accounts. The Center offers a set of instructional tools developed by Project Pace at the University of Arkansas at Little Rock. These tools are available on a set of CDs but have been modified to make them available on our website, www.ou.edu/drc. The list of instructional tools includes faculty development; tips for teaching students who are blind or have low vision; tips for teaching students who are deaf or hard of hearing; and tips for teaching students who have learning disabilities. If you have a need that cannot be met by any of the above, please contact Director Chelle Guttery at drc@ou.edu, 325-3852 voice, or 325-4173 TDD.” (From <http://www.ou.edu/content/dam/provost/documents/University-Policies-Regarding-Instruction.pdf>)

“Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see www.ou.edu/content/eoo/pregnancyfaqs.html for commonly asked questions.” (From <http://www.ou.edu/content/dam/provost/documents/University-Policies-Regarding-Instruction.pdf>)

Academic Misconduct:

All students are expected to be familiar with and abide by the rules established by OU Academic Integrity. This information is located <http://integrity.ou.edu>. As you will be doing a lot of writing in this course, please pay special attention to the section of plagiarism.

Questions about the course:

If you ever have questions about the course or suggestions please notify me during office hours or email.