

**Syllabus— Metr 2013 Fall 2014**  
**TR 11:30-12:45 pm in NWC 1350**

Dr. David Parsons; email: [dparsons@ou.edu](mailto:dparsons@ou.edu)

Office: NWC 5900; phone: 325-8565

Office hours: 12:45 to 2 pm Tuesdays and Thursday

In addition: You may try to “drop in” for quick questions, or schedule appointments through Ms. Becky Steely, Assistant to the Director, [bsteely@ou.edu](mailto:bsteely@ou.edu)

Teaching Assistant: Ms. Amanda Kis email: [akkis@ou.edu](mailto:akkis@ou.edu)

NWC 5409 office hours: 10:30 to 11:30 am Tuesdays and 11:30 to 12:30 pm Wednesdays

Prerequisite: MATH 1823 (C or better); Corequisite: METR 2011, MATH 2423, PHYS 2514 or 1205.

**Course Objectives:** Introduction to **physical meteorology** including the composition and vertical structure of the atmosphere, temperature, heat transfer, solar and terrestrial radiation, radiative balance, seasonal and daily temperatures variations, atmospheric moisture, heat and moisture indices, cloud formation and cloud types, atmospheric stability, cloud microphysics, weather radar and precipitation systems. The topics will be covered as time permits.

**Help sessions:** When the instructor taught METR 2023: Intro II, he organized optional help sessions for students. We will discuss these help sessions in the 2<sup>nd</sup> class.

**No Required Texts for the Lectures but the following text is recommended:**

**A First Course in Atmospheric Thermodynamics** by Grant W. Petty, Great resource for later courses. --- Much of the material on the thermodynamic section of the course will be drawn from this text.

**Grades** will be determined by the following formula:

2 mid-terms	25% each	=	50%
Homework		=	10 %
In class quizzes		=	10%
<u>Final exam (required)</u>		=	<u>30% (comprehensive)</u>
			100%

**EXAM SCHEDULE:**

**FIRST EXAM – 25 September - in class**

**SECOND EXAM — 30 October --- in class**

**FINAL EXAM — Wednesday 10 December at 10:30-12:30 pm in NWC 1350**

**QUIZZES:** The class will have ~8 unannounced, short quizzes during semester to help students gauge their basic knowledge and progress. We will drop the lowest two quiz scores. The quizzes

are to test basic knowledge and problem-solving abilities, while the exams and homework will be more in depth.

**Homework:** Assignments must be turned in at the start of class on the proscribed due date. Typically students will have one week to complete the homework assignments. Grades will be reduced on late assignments, up to one letter grade per day. If you have issues that prevent you from completing your assignments, talk to the instructor or TA before the assignment is due. Students often find it helpful to work together on homework problem sets. However, if you work in a group, the assignment needs to be an individual's own work in their own words and style (see Academic Integrity issues below).

### **GRADING:**

Greater than or equal to 90.0 % = A

Greater than or equal to 80.0 to less than 90.0 % = B

Greater than 70.0 to less than 80.0 % = C

Greater than 60.0 to less than 70.0 % = D

Below 60.0 % = F

Note: The instructor will occasionally travel several times during the semester for professional activities. Either the TA or a guest lecturer will provide lectures on the days the instructor is unavailable.

### **Legal Requirements:**

1) 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 required 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 only 405/325-4173.

2) Academic integrity policy website information: Details regarding academic integrity can be found at the following website: [www.studentconduct.ou.edu](http://www.studentconduct.ou.edu). In addition, persons found, or suspected of, having violated university academic conduct will be punished to the maximum extent allowable. The instructor will do his best to dissuade potential employers from hiring a person found guilty of academic misconduct.

3) Adjustments for Pregnancy/Childbirth Related Issues: 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](http://www.ou.edu/content/eoo/pregnancyfaqs.html) for commonly asked questions.

4) Title IX Resources: For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24.7, counseling services, mutual no contact orders, scheduling adjustments and disciplinary sanctions against the perpetrator. Please contact the Sexual Misconduct Office 405-325-2215 (8-5) or the Sexual Assault Response Team 405-615-0013 (24.7) to learn more or to report an incident.

**General comments:**

METR 2013 is the first physics and calculus-based meteorology course that our students take. The School has prescribed a set of *Knowledge Expectations* that students should obtain from this course. We will cover almost all those topics, which requires moving at a rapid pace. A grade of C or better grade is required to advance to the next course in the curriculum. Many sophomore students consider this material challenging. Meteorology is difficult. Indeed, in the past 20-30% of the students in this course find themselves unable to advance to the next class at the end of the semester. However, the School has no quota or limits on advancement. We hope that each student is successful in mastering the material and encourage students to be proactive in seeking outside tutelage as necessary. In addition to our own optional help sessions, a student-run Help Desk is available for meteorology classes through the Student Affairs Committee. In addition, your Teaching Assistant and I will hold regular office hours and can offer specific guidance related to assignments given in this class.