INSTRUCTOR: Dennis Lamb, Professor  
OFFICE: 519 Walker Bldg.  
(Open 1:30 to 2:30 pm, MWF)  
PHONE: 865-0174  
E-MAIL: lno@ems.psu.edu

CLASS MEETINGS: 012 Walker Bldg.  
10:10 – 11:00 PM Mondays, Wednesdays, Fridays

COURSE DESCRIPTION: Meteo 431 is a 3-credit lecture course that covers the fundamentals of classical thermodynamics and its applications to the atmosphere. The subject matter is by nature abstract because it is so general; the principles of energy conservation and degradation apply equally well to all branches of science and technology. A detailed consideration of matter in the gaseous and condensed states helps us understand the behavior of energy in the atmosphere and in our everyday world.

GRADING: The progress of each student toward understanding the course material will be assessed by a variety of tests and assignments, according to the weightings given below:

Quizzes and in-class participation 5 %
1. exam: Tues. 1 October (room 022 Deike)* 25 %
2. exam: Tues. 5 November (room 112 Walker)* 25 %
Final Exam: Wed. 18 December (4:40 – 6:30 pm) 30 %
Problem Sets 15 %

(* Each mid-term exam is held from 6:30 to 7:45 pm in the indicated room.)

TEACHING ASSISTANT: David Groff  
OFFICE: 530 Walker  
PHONE: 865-3196  
E-MAIL:

NOTE: Copies of most of the viewgraphs presented in class are on the course web site < http://www.ems.psu.edu/~lno/Meteo431/ >. Please note that this material is made available solely for your personal convenience.

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EXPECTATIONS AND POLICIES for Meteo 431:

As a student majoring in Meteorology you are expected to have a reasonable background in mathematics (through differential equations) and physics (mechanics, electricity and magnetism) before studying thermodynamics. Students with weak backgrounds in the fundamental disciplines are advised to postpone enrollment in this course.

Each student is expected to keep up with the subject matter and to participate actively and effectively in class. Participation may take the form of responding to questions posed by the instructor or of asking content-related questions in or out of the classroom. Quizzes, some unannounced in advance, will be used to encourage preparation for class and to let you assess your progress in understanding the subject matter. No make-up quizzes will be allowed. Exams serve to test not only your general knowledge of the subject matter, but also your ability to apply that knowledge to solving new problems.

Homework, assigned approximately weekly, must be turned in on time. Outside assignments may be challenging, but they nevertheless constitute only one way to learn. Reading from the required text and from the several books put on reserve in the EMS library is essential. Experience also suggests that rewriting your class notes within a day or so of each lecture leads to significantly enhanced learning of complex material. Remember that what you get out of any endeavor is proportionate to the effort you put in.

Reminder about academic integrity: Cheating and plagiarism are serious offenses that may be grounds for failing an assignment, an exam, or even the course. Collaboration with classmates can be an effective way of learning, especially when you are the one teaching others. In any case, the final work must be your own, a clear expression of your level of understanding. Please review the College policies related to academic integrity on the web <http://www.ems.psu.edu/students/integrity/statement.html>.