

General Circulation of the Atmosphere ATM 240 - 2019

Instructor: R. Grotjahn

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Class meets: 2:10 am - 4:00 pm T,Th in Room 124 Hoagland

Office hours: TBA in Rm 231 Hoagland, making an (informal) appointment is strongly recommended, as I have a lot going on. Drop in is ok but I can't guarantee that I can see you.

Not available:

The 2 hours before this class, AND also:

8 October (RG travel) and some Wednesdays

Holidays: 11, 28, & 29 November

Class webpage: <http://atm.ucdavis.edu/~grotjahn/course/atm240/index.html>

COURSE GOALS: To develop a broad understanding of the large scale properties of the Earth's atmosphere. A comprehensive presentation of atmospheric observations is made. This is interleaved with some simple theories to explain various observed features.

COURSE FORMAT: There are two texts for the course. During the first 'half' of the course Understanding the General Circulation by R. Grotjahn (aka G2020) is used. The first four chapters of this book along with four appendices are linked to the course website. The last 'half' uses Global Atmospheric Circulations, Observations and Theories, by R. Grotjahn. Lectures in the second half diverge from the material and the order used in the older book. Students are strongly encouraged to read the assigned material *before* coming to the class meeting (except for the first meeting). An errata for the older book can be accessed from the ATM240 course homepage for the general circulation book.

The lecture will begin with a brief summary of the previous lecture period. This is often a good time to ask questions you may have regarding the previous lecture material. The next 70-90 minutes of the class period will be a semi-formal lecture on the most important points in the reading assigned for that meeting. (A list of subjects and reading for each meeting can be found at the course website.) The remaining time is left for homework discussion or other questions. Class may occasionally finish 'early'.

Each lecture will be organized around a study list of concepts. Please consult the tentative course outline prior to each class meeting. In a departure from the order in the older text, some lectures "toggle" between chapter sections showing observations and sections showing theories in an effort to show strongly how the simple theories explain various observed properties.

GRADING: Grades will be based upon the homework and exams. Approximately one homework assignment per week will be handed out. No midterm exam is anticipated, however there may be pop quizzes; weight of the quizzes on the overall grade depend on how many quizzes are assigned (total for quizzes will not exceed 20% of the grade). The initial assessment quiz is worth 4% of the grade. If there are no other quizzes, grading is based upon homework (63%) and final exam (33%).