

**670:202**    **ELEMENTS OF CLIMATOLOGY-SPRING 2010**  
MR. ARNESEN    SECTION 01    Monday/Thursday 10:55 am-12:15 pm    FSA  
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Environmental Science building 14 College Farm Road/ SEBS campus

Office hours- Monday 1:00-3:00 pm,    Tuesday 1:00-3:00 pm  
E-mail for an appointment if the above times are not compatible

**Text:- Essentials of Meteorology 5<sup>th</sup> edition by C. Donald Ahrens**

Chapters labeled as "supplemental" are not required but you may find helpful with background info  
3 hourly exams=70% (2/15/10, 3/8/10, 4/5/10)

Final exam=30% (8 am 5/7/10    **NO EXAMS WILL BE GIVEN EARLY**)

**IF YOU MISS AN EXAM YOU WILL NEED A SIGNED NOTE FROM A DEAN OR YOUR DOCTOR (NOT THE RUTGERS HEALTH CLINIC) IN ORDER TO TAKE A MAKE-UP**

**(approximate not necessarily exact date of start of topic in parenthesis)**

Introduction-Climate versus weather page 354 (1/21)

**ATMOSPHERIC PROCESSES**

Atmospheric structure-Chap 1 pages 8-10 also pages 333-337 (1/25)

Global heat exchange-Chap 2 pages 26-42 ( ozone hole video 1/28)

Heat budget exchange-Chap 2 pages 43-51 (2/1)    **chapter 14 supplemental** (2/4 global warming video)

Climate Change lecture by Dr. Alan Robock (2/8)

Atmospheric moisture-Chap 4 pages 80-87 (2/11)

Air masses-Chap 8 pages 204-214 also 188-189 (2/22)

Flow perturbation in the Mid Latitudes ( cyclones )-Chap 8 pages 222-228 also pages 277, 285 (2/25)

Flow perturbations in the Low Latitudes (Hurricanes) -Chap 11 (2/25)

Observed atmospheric circulation patterns-**Chap 7 important chapter** (3/1 patterns in the air videos)

**CLIMATIC ELEMENTS**

Wind-Chap 7 (3/11)

**Spring break 3/13-3/21**

Condensation, Precipitation-Chap 5 supplemental (3/22)

Temperature-Chap 3 supplemental (3/25)

**CLIMATIC DISTRIBUTION ( supplemental web site for climates of the world)**

**[http://www.worldbook.com/wb/Students?content\\_spotlight/climates/about\\_climates](http://www.worldbook.com/wb/Students?content_spotlight/climates/about_climates)**

Climatic classification-Chap 13 (3/29)

Climate of North America-power point presentation (4/1)

Climate of Eurasia- power point presentation (4/15)

Climate of Africa- power point presentation (4/19)

Climate of South & Central America- power point presentation (4/26)

**(el nino web-site 10% of final exam) <http://www.pmel.noaa.gov/tao/elnino/report/el-nino-report.html>**

Climate of Australia/New Zealand- power point presentation (4/29)

Climate of The Polar regions- power point presentation (4/29)

**Microclimatology, Climate and water resources, Climate and agriculture, Climate on the Web (5/3)**

Any material presented in class (including video's) may be included on the exams.

**It is expected that each student be aware of, and adhere to the University policy about ACADEMIC HONESTY.**