

I CARE ABOUT AIR: SYLLABUS

Donald Stedman. 303 871-2580 work or home 303 757 2489 before 10:00 pm and after 7:00 am and talk to the machine which always answers.

Office Hours: I will try to be in my office (S.G. Mudd Rm 101 at the bottom of the ramp S>W> of Olin) every noon hour and usually arrive 8:00 am and leave about 5:45 pm. If noon is not a possible time.

Week 1 Lecture 1 D.S. grading scheme, the scientific method, assignments for Ozone Data Analysis discuss chapter 1 and atmos chem. in general. Assign reading of Photochemical Ozone Simplified.

Lecture 2 National Park Service Dr. John. Ray of the National Park Service web page data sites.

Week 2 Lecture 1 Access and Excel as methods to sort NPS data

Lecture 2 Aerosols and visibility J.C. Wilson Engineering

Homework 2 Write on Photochemical Ozone Simplified and provide at least one and not more than two pages on what you learned (or failed to understand) from same. E-mail homework before 6:00 pm Thursday Sept. 21. Read Weekend Effect.

Week 3 DS Lecture 1 air general Lecture 2 planetary atmospheres RCI in class.

Homework 3 in your assigned pairs write no more than two pages on the atmosphere of your assigned planet. E-mail homework before 6:00 pm Friday Sept. 29. Assigned pairs for molecules.

Week 4 DS evolution of the earth's atmosphere "From Toxic Soup to good stuff" and the greenhouse effect.

Homework 4 measure approximately and report your lung volume and calculate how many molecules you breath back in from the ones you blew out for the candles on your tenth birthday. No more than two pages on how you did the measurement, what was the volume result and the result of the number of molecules calculation. 1-2 pages on "Weekend effect". What did

you and did you not understand therein. E-mail homework before 6:00 pm Friday October 6. Read Schwartz Lindenwood paper. This is 26 pages!

Week 5. DS presentations on molecules that you are not doing. Visit spirometer.

Homework 5 Individual reports, no more than two pages of text and as many diagrams as you believe necessary on your assigned Nat Park weekend ozone effect for at least one year. E-mail homework before 6:00 pm Friday October 13. Read Chapter 15.

Week 6 Meteorology for beginners Global and climate oral presentations on your assigned molecule which will be graded by your peers

Homework 6 Individual one page reports on at least one weather related experience of your own. 1-2 pages on Schwartzwhitepaper What did you and did you not understand therein. E-mail homework before 6:00 pm Friday October 20. Read Applied Spectroscopy.

Week 7 Meteorology for beginners Micrometeorology and air pollution meteorology. Answer any questions on Schwartz.

Homework 7. 1-2 pages on Chapter 15. What did you and did you not understand therein. E-mail homework before 6:00 pm Friday October 27.

Week 8 Air pollution: Auto exhaust measurements and results. FEAT demo. Answer any questions on Chapter 15. 1-2 pages on Applied Spectroscopy. What did you and did you not understand therein

Week 9 Stratospheric ozone and the Nobel Prize. Answer any questions on Applied Spectroscopy.

Homework 9 final reports weekend effect and statistics thereof for your park E-mail homework before 6:00 pm Thursday November 9.

Week 10 careers in air. Two guest lecturers one from Apogee Scientific, the second from the State of Colorado. Homework 10 Two or three page report due at the end of week 10 on what you learned what you would have wished to be done more, less, the same and how you would run this course if it were yours to decide.

The final exam. Will be questions from the assigned readings and will be held in Olin 103 at 9:00 am on Tuesday November 21.