

## READINGS

**Primary text:** Godish T. Air Quality, 4<sup>th</sup> ed. Lewis Publishers, Boca Raton, 2004.  
Chapter readings are from this text.

**Supplemental text:** Jacobson M. Atmospheric Pollution: History, Science and Regulation. Cambridge University Press, Cambridge, 2002.

**Supplemental readings:** the numbers in brackets [#] correspond to the numbers in the “reading hard copies” link under Readings on the course website.

### **April 1** Introduction.

No readings

### **April 3** Components, sources & chemistry (I)

Chapter 2.1, 2.2, 2.4

[1] Summary of US particulate matter trends:

<http://www.epa.gov/air/airtrends/2008/report/ParticlePollution.pdf>

Elective:

[2]: Detailed Puget Sound air pollution concentrations and trends:

<http://www.pscleanair.org/news/library/reports/2007AQDSFinal.pdf>

Jacobson, Chapter 5

### **April 8** Components, sources & chemistry (II)

Chapter 2.3

[3] Summary of US ozone trends

<http://www.epa.gov/air/airtrends/2008/report/GroundLevelOzone.pdf>

[4] Summary of US NO<sub>x</sub>, SO<sub>2</sub> and CO trends

<http://www.epa.gov/air/airtrends/2008/report/NO2COSO2.pdf>

### **April 10** Dynamics, meteorology, dispersion and modeling

Chapter 1.1, 1.2, Chapter 3.1, 3.3 and Chapter 7.3

Elective: Chapter 1.3 & 3.2

### **April 15 and April 17.** Criteria pollutant health effects (I and II)

[5]

Elective: Chapter 5.

### **April 22** Hazardous air pollutants and health effects

Ch 8.4.8

[6] <http://www.epa.gov/air/airtrends/aqtrnd99/pdfs/Chapter5.pdf>

[7] HAPS discussion questions (pdf)

[8] Puget Sound Air Toxics Evaluation 2003

[9] WA State NATA1 (pdf)

[10] WA State NATA2 (pdf)

[11] WAC regulations

[12] EPA.NATA (pdf)

[13] PSCAA regs (pdf)

**April 29** Welfare effects (visibility, etc.)

Chapters 4.1 - 4.2. No supplemental readings.

**May 1** Welfare effects (ozone depletion and other welfare effects)

Ch 4.6 & 6.3.3

Ch 4.3 - 4.5

Ch 6 (esp. 6.1 & 6.3.2.1)

**May 8** Greenhouse gases (climate change)

Chapter 4.7

[14] Mazzi EA, Dowlatabadi H. Air quality impacts of climate mitigation: UK policy and passenger vehicle choice. Environ Sci Technol 2007; 41: 387-392.

[15] IPCC Working Group 1 Fourth Assessment Report (pdf)

[16] Elective: McMichael AJ, Woodruff RE, Hales S. Climate change and human health: present and future risks. Lancet 2006; 367: 859-869.

**May 13** Air quality management (I): PSCAA/wood burning

[17] PSCAA strategic plan (pdf)

[18] PSCAA PM background (pdf)

**May 15** Control methodology & technology

Chapter 10

Elective: Chapter 9

**May 20** Air quality monitoring

Chapter 7.1 - 7.2

[19] AQI from PSCAA (pdf)

[20] PSCAA monitoring network (pdf)

**May 22** Air quality management (II): standards & guidelines

Chapter 8.3 – 8.4

Elective: [21] Jacobson (Ch 8.1 – pdf)

**May 27** Air quality management (III): compliance

Chapter 8.1 – 8.2; 8.5 – 8.6

[17] PSCAA strategic plan (pdf)

**May 29** Special topic: alternative fuels

[22] Fargione 2008 (pdf)

[23] Elective: Searchinger 2008 (pdf)

[24] Elective: Rebuttal to Searchinger

[http://www.transportation.anl.gov/pdfs/letter\\_to\\_science\\_anldoe\\_03\\_14\\_08.pdf](http://www.transportation.anl.gov/pdfs/letter_to_science_anldoe_03_14_08.pdf)

[25] Elective: International Herald Tribune 2008

<http://www.iht.com/articles/2008/04/23/opinion/edcohen.php>

**June 3** Indoor air quality & health effects

Chapter 11.

[26] Dales 2008 (pdf)