CEE 490/ENV H 461 Air Pollution Control
M-W 10:30-12:20; 105 Loew Hall
Professor Tim Larson, (tlarson@uw.edu)
Website: https://canvas.uw.edu/courses/1137683
There is not a required textbook for this class.
Notes and assignments will be posted on the course website.

Criteria Pollutants
- Air Quality Standards
- Smog Basics
- Health Effects

Stationary Source Regulations and Testing
- Air Permits
- Toxic Air Pollutants
- Aerscreen Dispersion Model
- EPA source test methods and sampling calculations
- Continuous emission monitoring:

Stationary Source Controls
- Control of Particulate Emissions
  - Properties of Particles
  - Settling chamber
  - Cyclone
  - Fabric Filters
  - Electrostatic Precipitator
  - Particulate Scrubbers
- Control of Hydrocarbon Emissions
  - Adsorption
  - Condensation
  - Incineration
  - Biofiltration
- Control of Inorganic Gaseous Emissions
  - NOx,
  - SO2
  - Hg
  - CO2
Mobile Source Controls

Regulations
Federal and California Emission Standards
Fuel Economy Standards
Renewable Fuel Standards

Control Technologies
Vehicles
fuels
Exhaust gas treatment

Emission Estimation Tools
MOVES2010
AFLEET

Grading:

Homework: 20%
Group Presentations 15%
Midterm: 30%
Final: 35%

Some Textbooks on this subject:

“Air Pollution Control: A Design Approach” 4th Edition by Cooper and Alley, Waveland Press, 2010

“Air Pollution Control Engineering” by DeNevers, Waveland Press, 2010

“Air Quality” 5th Edition by Godish, Davis and Fu CRC Press, 2014

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