

CEE 664
Air Resources Management

Catalog data:	20-CEE-673 (20-CEE-664). Air Resources Management. 3 ug./gr. cr. Effects, sources and typical concentrations of air pollutants found in modern society. Principle of manual and automated methods of air pollutant measurement and monitoring. Laws and regulations governing the management and control of air pollution in the United States. Meteorological impacts on dispersion and transformation of air pollutants. Descriptions and design criteria for equipment to control both particulate and gaseous air pollutants.
Prerequisites:	Basic Statistics, Mathematics, Physics and Chemistry.
Textbook:	K. Wark, C. F. Warner and W. T. Davis (1998) <i>Air Pollution: It's Origin and Control, Third Edition</i> , Addison Wesley, Menlo Park, California
References:	Supplemental reading materials handed out in the class
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Lecture or Lab Topics:	<ol style="list-style-type: none">1. Sources and effects of air pollutants (2 classes)2. Concentration units including different unit of standards and wet/dry basis (2 classes)3. Emission calculations and estimations from various sources (3 classes)4. Sampling and measurement techniques for air pollutants. (3 classes)5. Clean Air Acts overview (2 classes)6. New Source Review, PSD, and NESHAPs programs (2 classes)7. Continuous emission monitoring (2 classes)8. Introduction to meteorology and air pollution dispersion modeling (2 classes)9. Introduction to Gaussian plume model and EPA Regulatory Models (3 classes)10. Introduction to gaseous control equipment (3 classes)11. Introduction to particulate control equipment (3 classes)
Computer Usage	Research for information from various web sites. Air pollution dispersion modeling and control equipment design exercises.
ABET criterion 3:	a, c, e, f, g, h, j, k
ABET criterion 8:	b, c, e, f, g
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