

**CE 326 PRINCIPLES OF ENVIRONMENTAL ENGINEERING**  
**Fall 2009**

Lecture	Date	Topics	Reading Assignment
1	Aug 24	Introduction, Air Pollution – fundamentals and standards	1-35, 547-562
Lab 1	Aug 26	Material Balance Lab	
2	Aug 28	Air Pollution –effects, origins, fate of pollutants	562-580
Lab 2	Sep 9	Field Trip – Iowa State University Power Plant	
3	Sep 11	Air Pollution – greenhouse effect, acid rain, ozone	580-600
4	Sep 14	Air Pollution – dispersion of pollutants	601-633
Lab 3	Sep 16	Dispersion Model – Stack Height	
5	Sep 18	Solid Wastes – sources, management,	736-796
6	Sep 21	Solid Wastes – processing, and disposal	
Lab 4	Sep 23	Field Trip – Ames Resource Recovery Facility	
7	Sep 25	Hazardous Wastes– sources, management,	814-903
8	Sep 28	Hazardous Wastes– processing, and disposal	
Lab 5	Sep 30	Field Trip – Boone County Landfill	
Exam 1	Oct 2		
9	Oct 5	Water Supply – water chemistry and water quality	188-217
Lab 6	Oct 7	Chemical Concepts	
10	Oct 9	Water Supply – water quality standards	257-266
11	Oct 12	Water Supply – treatment systems	
Lab 7	Oct 14	Jar Test	
12	Oct 16	Water Supply – coagulation and flocculation	266-294
13	Oct 19	Water Supply – sedimentation and filtration	
Lab 8	Oct 21	Field Trip – Ames Water Treatment Plant	
14	Oct 23	Water Supply – disinfection, adsorption	294-310
15	Oct 26	Water Supply –membrane processes	
Lab 9&10	Oct 28	Design Problem – Rapid Filter	
Exam 2	Oct 30		
16	Nov 2	Wastewater – water quality	354-373
17	Nov 4	Wastewater – biochemical oxygen demand	
Lab 11	Nov 6	BOD, DO	
19	Nov 9	Wastewater – dissolved oxygen sag curve	373-400
20	Nov 11	Wastewater – biological processes	
Lab 12	Nov 13	Field Trip – Ames Water Pollution Control Facility	
21	Nov 15	Wastewater – standards, onsite, preliminary, primary, and secondary treatment	420-459
22	Nov 18	Wastewater –biochemical environment	459-500
Lab 13&14	Nov 20	Design Problem – Activated Sludge	
23	Nov 30	Wastewater – trickling filter and activated sludge	
24	Dec 4	Wastewater – sludge and biosolids treatment and disposal	311-328, 508-525
Exam 3	Dec 11		

Text: Davis and Cornwell, Introduction to Environmental Engineering, 4<sup>th</sup> edition, McGraw-Hill, 2008

Grading: 3 exams @ 20% each, total: 60% Homework and labs: 40%

Course homepage: <http://home.eng.iastate.edu/~tge/ce326>

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