

ENVE/CE 2310 Environmental Engineering Fundamentals

Fall 2009 – Prof. MacKay ***Revised 9/16/2009***

Text: Introduction to Environmental Engineering, Mines & Lackey

Theme	Monday	Wednesday	Friday
<i>Engineering and the Environment</i>	8/31 – Human Impacts Then... pp. 1-7	9/2 – ... And Now <i>Case Study: Atrazine</i>	9/4 – Health Risks pp. 98-106
<i>Evaluating Impacts</i>	<u>9/7 – NO CLASS</u>	9/9 – Risk Assessment pp. 107-112	9/11 – Mass Balances pp. 120-124, 134-139
<i>Tools of the Trade (ENVE 4310)</i>	9/14 – Mass Balances <i>Supplemental*: non-SS</i>	9/16 – Mass Balances pp. 140-142	9/18 – Mass Balances <i>Coupled systems</i>
	9/21 – Mass Balances <i>Case Study: Aberjona R.*</i>	9/23 – Mass Balances	9/25 – Water Cycle <i>Case Study: Colombia*</i>
<i>Water Use & Disposal (CE 3220)</i>	9/28 – Water Treatment 201-203,207-210,220-236	<u>9/30 – MIDTERM #1***</u> <i>Content up to & incl. 9/21</i>	10/2 – Wastewater Treat pp. 243-244,246-257,264
<i>Subsurface Waste Disposal (ENVE 5252)</i>	10/5 – Groundwater Hydrology pp. 320-323	10/7 – Contaminant Transport pp. 309-319	10/9 – Groundwater Remediation <i>Supplemental*</i>
	10/12 – Brownfields <i>Case Study: Rayvac*</i>	<u>10/14 – MIDTERM #2</u> <i>Content 9/25 – 10/12</i>	10/16 – Water-Energy Nexus pp. 143-149
<i>Power Generation (ENVE 3230)</i>	10/19 – Meteorology pp. 279-286	10/21 – Air Treatment pp. 289-301	10/23 – Plume Models <i>Supplemental*</i>
<i>ENVE Chemistry (ENVE 4210)</i>	10/26 – Carbonate Chemistry pp. 37-47	10/28 – Acid Rain pp. 51-55	10/30 – Acid Rain <i>Supplemental*</i>
	11/2 – Global CO₂ pp. 286-289	<u>11/4 – MIDTERM #3</u> <i>Content 10/16 – 11/2</i>	11/6 – Env'tl Footprint <i>Case Study: Biosphere*</i>
<i>Site Development (CE 4410, 4810)</i>	11/9 – Hydrologic Cycle pp. 175, <i>Supplemental*</i>	11/11 – Land Use <i>Case Study: CLEAR*</i>	11/13 – Land Use <i>Supplemental*</i>
	11/16 – Biogeochemistry pp. 69-80	11/18 – Eutrophication pp. 184-187	11/20 – Eutrophication <i>Supplemental*</i>
	<u>11/23 – NO CLASS</u>	<u>11/25 – NO CLASS</u>	<u>11/27 – NO CLASS</u>
<i>Env'tl Sustainability (new GEOC AY'10)</i>	11/30 – Lifecycle Analysis pp. 154-157	12/2 – Lifecycle Analysis pp. 165-169	12/4 – Green Buildings
	12/7 – Alt. Energy Sources <i>Suppl.*</i>	12/9 – Future UCONN <i>Case: Co-Gen Plant*</i>	<u>12/11 – Exam Review</u>

*Available on WebCT

CE 3220 – Water Quality Engineering; CE 4410 – Site Design; CE 4810 – Engineering Hydrology; ENVE 3230 – Introduction to Air Pollution; ENVE 4210 – Environmental Chemistry; ENVE 4310 – Environmental Modeling; ENVE 5252 – Groundwater and Site Remediation