

ENVIRONMENTAL HEALTH AND MEDICINE (BIOL-27800)
LECTURE SCHEDULE:

Disclaimer: This lecture schedule is my best forecast of the order in which course material will be presented and related reading assignments. There is no guarantee that we will follow this schedule exactly: any changes will be announced in class.

#	Date		Topic	In Class Activity	Homework/Reading	What's Due
Introduction						
1	23-Jan	W	Overview	Why this is going to be so hard. Toxicology Problem Set	1) The Pollution Within, Optional: Brooks Chap 1, Moeller Chap 1,	
2	25-Jan	F	Types and Sources of Hazards	Class Discussion	1) Farmed and Dangerous, The Observer, 2004, 2) Hites et al., Global Assessment of Organic Contaminants in Farmed Salmon (Science, 303: 226-229), 3) Wania and Mackay 1996. Tracking the Distribution of Global Pollutants (Envir. Sci. & Technol. 30: 390A-396A), Optional: Brooks Chap 2, Stokstad, Salmon Survey Stokestad, 2004. Debate about Farmed Fish (ES&T, 303: 154-155)	
3	28-Jan	M	Pharmacology and Toxicology	Lecture	1) La Dou, Chapter 13 Clinical Toxicology, 2) Putting a Price on the Priceless (Kolata), 3) Newman. 2005. Toxic Tales (Nat. Geo. May, p.8-31) Optional: Trimbrell, Chaps 1-4, Chemical Product Testing	Cluster Busters
4	30-Jan	W	Pharmacology and Toxicology (Con't)	Lecture	1) Sexton et al. Human Biomonitoring of Environmental Chemicals (Amer. Sci. 92: 38-46), 2) Pray, 2006, Soiled Genes (Orion, Nov/Dec 2005, 70-71. Optional: Philp Chap 1, Brooks Chap 6,	
5	1-Feb	F	The role of medical practitioners	Filling out an Exposure Evaluation	La Dou, Chapter 2 Occupational Medical History, Brooks Chap 18-19	
6	4-Feb	M	Risk Assessment	Lecture	La Dou Chapter 45: Risk Assessment, Gilbert: Chapter 19, Premeditated Murder (Merrell and Van Strum)	
7	6-Feb	W	Risk Assessment	*Quiz 1 (lectures 1-5) Project Green Skate Discussion		Project Greenskate
8	8-Feb	F	Risk assessment- RAIS	RAIS Computer Exercise	RAIS Webpage Tutorial (http://rais.ornl.gov/)	
Cancer						
9	11-Feb	M	Introduction	Straight Up lecture/Discussion, Video: Cancer and Metastasis (V-5709, 37 min)	1) La Dou Chapter 16: Occupational Cancer, 2) Gibbs, W., Untangling the Roots of Cancer (Sci. Amer. 2003: 57-65), Optional: Gilbert: Chapter 16, Tricopoulos, 1996, What causes cancer? (Sci. Amer. 1996, Sept., p.80-87)	Dose-Response Homework
10	13-Feb	W	Process of Carcinogenesis	*Quiz 2 (lectures 1-9) Video: Toxic Bust (DVD	Rom, Chap 11, Klaassen&Watkins, Chap. 8 Brooks, Chap. 7	

				3757, 41 min)		
11	15-Feb	F	Solvents	Lecture/ Video: Trade Secrets (V-6972, 120 min)	1) LaDou Chapter 29: Solvents, 2) Living Downstream (pages TBA) 3) Morris, J. 2000. Small-time polluter, big time problems: Did Keil Chemical cause childhood cancer? (US News & World Report, 2,28, p. 57-58), Optional: Klaassen & Watkins, Chap. 24	
12	18-Feb	M	PAHS	Lecture		
13	20-Feb	W	Ozone Loss	*Quiz 3 (lectures 6-13) Lecture/Video: Melanoma (DVD 1057, 17 min)	1) Lafell and Brash, 1996. Sunlight and Skin Cancer (Sci. Amer.: p. 52-59)	
14	22-Feb	F	Prevention, Therapies and Treatments	Discussion based on student research	Potions from Poison (Dorfman)	Cigarette Smoke and Lung Development
15	25-Feb	M	Student Presentations/Clinics	Student Presentations/Clinics		
Heart Disease						
16	27-Feb	W	Introduction	Lecture	LaDou Chapter 21: Cardiovascular Toxicology, p. 334	
17	29-Feb	F	Carbon Monoxide	Lecture/ Video: Silent Killers (DVD 1523)	LaDou Chapter 21: Cardiovascular Toxicology, p. 336-339	Paper: Detailed Outline and References
18	3-Mar	M	Nitrates	Lecture	LaDou Chapter 21: Cardiovascular Toxicology p. 339-342	
Neurological Issues						
19	5-Mar	W	Introduction	*Quiz 4 (lectures 9-18) Lecture	1) LaDou Chapter 24: Neurotoxicology, Kaplan S. and J. Morris, 2000. Kids at Risk (US News & World Report, June: p. 47-53) Optional: Gilbert Chap 15	
20	7-Mar	F	Pesticides	Discussion/Video: For Export Only (V-2387, 47 min), or Vietman: Secret Agent (V-843, 57 min)	LaDou Chapter 31: Pesticides	Midterm Exam
Spring Break						
21	17-Mar	M	Lead	Lecture/Case Study	1) La Dou, Chap. 27, p. 422-425. 2) Mielke, Lead in Inner Cities (Amer. Sci, 1999, p. 62-73) Optional: Falk, H. International Environmental Health for the Pediatrician: Case Study of Lead Poisoning	
22	19-Mar	W	Mercury	Lecture/Video/Discussion	LaDou, Chapter 27, p. 427-429. Steingraber, Tune of the Tuna Fish (Orion, 2006, Jan/Feb, p. 25-27). Optional: Timbrell: 137-141	
23	21-	F	Warfare Agents	Lecture	TBA	

	Mar					
24	24-Mar	M	Student Presentations/Clinics			
Endocrine Disruption						
25	26-Mar	W	Introduction	Guest Lecture: Sandra Steingraber, Video:	Our Stolen Future, p: TBA, Optional: Gilbert Chapter 17, Timbrell 134-137	Total Diet Study
26	28-Mar	F	Pthalates	*Quiz 5 (lectures 14-25) Lecture	Plastic Plague, Orion	
27	31-Mar	M	Atrazine		TBA	
28	2-Apr	W	<i>Our Beloved Community</i>	FLEFF Film		
29	4-Apr	F	<i>A Killer Bargain</i>	FLEFF Film		Contaminants Synopsis
30	7-Apr	M	Student Presentations/Clinics	Student Presentations/Clinics		
Pulmonary Diseases						
31	9-Apr	W	Introduction	Lecture	La Dou, Chapter 19: Upper Respiratory Tract Disorders	
32	11-Apr	F	Asbestosis	Lecture	La Dou, Chapter 20: Occupational Lung Diseases	
33	14-Apr	M	Black lung disease	Lecture	La Dou: Chapter 14: Clinical Immunology, p. 192-196	
34	16-Apr	W	Asthma	Video: Kids & Chemicals (DVD 407, 47 min)	La Dou: Chapter 39: Outdoor Air Pollution	
35	18-Apr	F	Student Presentations/Clinics			Final Research Paper
Infectious Diseases						
36	21-Apr	M	Malaria	Class Discussion	Finkel, M. 2007. Bedlam in the Blood (Nat. Geo. July, p. 32-67)	
37	23-Apr	W	Cholera	*Quiz 6 (lectures 19-36) Lecture	Jaret, 1991. The Disease Detectives (Nat. Geo. Jan, p. 116-140), Wills, Chap. 6	
38	25-Apr	F	MRSA		TBA	
39	28-Apr	M	Bird Flu		Appenzeller, 2005. Tracking the Next Killer Flu (Nat. Geo., Oct., p. 8-31)	
40	30-Apr	W	Zoonotic Diseases	Class Discussion	Quammen, D. 2007. Deadly Contact (Nat. Geo. Oct. p.79-105)	
41	2-May	F	Tuberculosis		Weiss, War on Disease (Nat. Geo. Feb, 2002, p. 11-31)	FINAL EXAM
42	5-May	M	Student Presentations/Clinics			
	EXAM WEEK					