

UEP 201
Environmental Health and Policy
 Urban and Environmental Policy Department
 Spring 2019

Professor Bhavna Shamasunder

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Office Hours: Tuesday and Thursday, 1-2:30

And always by appointment if you cannot make these times

(You should plan on attending office hours at least once, if not more during the semester)

Course Requirements

Assignment	Contents	Grade Points	Week Assigned	Week Due
Participation	Class preparation, engagement in class; asking questions; active listening; attendance	10%	--	--
Homework	Problem Sets and Short Answer/Essay Prompts assigned on either Tuesday or Thursday	20%	Weekly	Due each Sunday night 11:59pm via moodle.
Midterm	Session topics through week 5	20%	Week 6	In Class, March 7 th
Group/Class Research Project **	Handout will be given for internal due dates for the full semester	25% (including group presentation)	Ongoing	Final Week of Class
Final Exam	Comprehensive	25%		TBD (as assigned by the college)

*All problem sets will be completed via moodle and posted in hard copy, in case you hit a tech snafoo

**Please follow Chicago (author-date) citation format for all bibliographies

Week 1	Situating Environmental Health and Environmental Toxicology
Tuesday, January 22	Nash, Linda; "Purity and Danger: Historical Reflections on the Regulation of Environmental Pollutants"; <i>Environmental History</i> ; V.13, No. 4; October 2008; pp. 651-658
Thursday, January 24	Environmental Toxicology, Maxwell (textbook), Chapter 2; (pg.5-37) Friis, Robert; "Environmental Toxicology"; Chapter 3; Sandra Steingraber "Environmental Amnesia" <i>Orion</i> May/June 2008; https://orionmagazine.org/article/environmental-amnesia/ Etzel, Ruth and Landrigan, Philip; "Children's Exquisite Vulnerability to Environmental Exposures"; p. 18-27; in <i>Textbook of Children's Environmental Health</i> (moodle)
Week 2	Environmental Epidemiology
Tuesday, January 29	Maxwell, Chapter 2; Epidemiology; pp. 37-52 covers epi, though you are responsible for all of chapter 2 between last Thursday and this week. Friis, Robert, Chapter 2; Environmental Epidemiology (chapter posted on moodle)

	<p>Brown, Phil; "Popular Epidemiology: Community Response to Toxic-Waste Induced Disease in Woburn, Massachusetts"; <i>Science, Technology, & Human Values</i>, Vol. 12, No. 3/4, Special Issue on the Technical and Ethical Aspects of Risk Communication. (Summer - Autumn, 1987), pp. 78-85.</p>
<p>Thursday, January 31</p>	<p>Wing et al; "Integrating Epidemiology, Education, and Organizing for Environmental Justice: Community Health Effects of Industrial Hog Operations"; <i>American Journal of Public Health</i>; v98, n8; August 2008; http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2007.110486</p> <p>Environmental Tobacco Smoke, A Case Study. Links to readings/worksheet posted on moodle</p> <p>Baker, Dean; "Epidemiology—A Tool for Studying Environmental Influences on Children's Health"; pp. 49-57; in</p> <p>Group Projects: Topic, Group Assignments; Expectations, Overview; Due Dates</p>
<p>Week 3</p>	<p>Measuring Exposure and Risk</p>
<p>Tuesday, February 5</p>	<p>Maxwell; pp. 28- 37 and pp. 52-66 (go over again as these were assigned above)</p> <p>Yost and Ryan; "Exposure Science, Industrial Hygiene, and Exposure Assessment"; Chapter 8 in <u>Environmental Health: From Global to Local</u></p> <p>Rachel Morello-Frosch, Miriam Zuk, Michael Jerrett, Bhavna Shamasunder and Amy D. Kyle, "Understanding the Cumulative Impacts of Inequalities in Environmental Health: Implications for Policy" <i>Health Affairs</i> May 2011</p> <p>James Sadd, Rachel Morello-Frosch, Manuel Pastor, Martha Matsuoka, Michele Prichard, and Vanessa Carter, "The Truth, the Whole Truth, and Nothing but the Ground-Truth: Methods to Advance Environmental Justice and Researcher-Community Partnerships" <i>Health Education & Behavior</i> 2014, Vol. 41(3) 281-290</p> <p>Shettler, Barrett, and Raffensperger; "The Precautionary Principle: Protecting Public Health and the Environment"; http://www.healthandenvironment.org/articles/doc/540</p>
<p>Thursday, February 7</p>	<p>Infectious Diseases and Environmental Health</p>
	<p>Maxwell, Chapter 3; Living With Nature</p> <p>Farmer, Paul; "Social Inequalities and Emerging Infectious Disease"; <i>Emerging Infectious Diseases</i>; v2, n4; Oct-Dec; 1996 (Please read this article closely)</p> <p>Feingold, Beth et al; "A Niche for Infectious Disease in Environmental Health: Rethinking the Toxicological Paradigm"; <i>Environmental Health Perspectives</i>; 118(8); August 2010</p> <p>Peachman, Rachel; "When Measles Spreads from Disneyland, It's a Small World After All"; <i>Motherlode</i>. January 21, 2015; http://parenting.blogs.nytimes.com/2015/01/21/when-measles-spreads-from-disneyland-its-a-small-world-after-all/?smid=fb-share& r=1</p>
<p>Week 4</p>	<p>Infectious Diseases Continued and Intro to Endocrine Disruption/Producing Manufactured Goods</p>
<p>Tuesday, February 12</p>	<p>Maxwell, Chapter 3 Living with Nature; Continued;</p> <p>Weber, Lauren; "Deadly Hepatitis A Outbreaks Are Exposing Crumbling US Public Health Infrastructure"; December 28, 2018; https://www.huffingtonpost.com/entry/hepatitis-a-outbreak-america_us_5c0ecf0fe4b06484c9fd9d0c</p> <p>Birnbaum and Jung; "Evolution in Environmental Health: Incorporating the Infectious Disease Paradigm"; <i>Environmental Health Perspectives</i>; 118(8); 2010</p> <p>Green, Carla; "Wealthy Los Angeles grapples with outbreak of typhus among its poorest Concern focuses on homeless population as 64 cases reported a year after hepatitis A infected hundreds"; October 18, 2018; https://www.theguardian.com/us-news/2018/oct/18/los-angeles-typhus-outbreak-homeless</p>

<p>Thursday, February 14</p>	<p>Endocrine Disruption and Producing Manufactured Goods Chapter 5 Maxwell (Textbook); Producing Manufactured Goods</p> <p>Chapter 5 Continued; Producing Manufactured Goods; Stroustrup, Annemarie and Shanna H. Swan; “Endocrine Disruptors”; in <i>Textbook of Children’s Environmental Health</i>; pp. 325-332</p> <p>Schug et al_ “MiniReview: Endocrine Disruptors: Past Lessons and Future Directions; <i>Molecular Endocrinology</i>, Volume 30, Issue 8, 1 August 2016, Pages 833–847, https://doi-org.oxy.idm.oclc.org/10.1210/me.2016-1096</p> <p>Altman, Rebecca; “American Beauties: They catch in the wind, gather on the street, and clog our trash cans. How plastic bags came to rule our lives, and why we can’t quit them; https://www.topic.com/american-beauties</p>
<p>Week 5</p>	<p>Consumer Products Continued and Intro to Heavy Metals: Lead and Mercury</p>
<p>Tuesday, February 19</p>	<p>Chapter 5: Producing Manufactured Goods Continued</p> <p>See the website https://endocrinedisruption.org/: Read “About Us” and the Founder Theo Colburn</p> <p>Lauren Richter, Alison Cordner, and Phil Brown; “Non-stick science: Sixty years of research and (in)action on fluorinated compounds”; <i>Social Studies of Science</i>; September 20, 2018; https://journals-sagepub-com.oxy.idm.oclc.org/doi/10.1177/0306312718799960</p> <p>Lanphear; “Lead” and Grandjean, “Mercury”; in <i>Textbook of Children’s Environmental Health</i>; pp. 262-280</p> <p>Descriptive Epidemiology: Three Important Causes of Morbidity in the United States; pp. 118-132 in <i>Essentials of Epidemiology in Public Health</i></p>
	<p>Case Studies of Lead and Mercury</p>
<p>Thursday, February 21</p>	<p>Kristof, Nicholas; “This is Your Brain on Toxins”; <i>New York Times</i>; October 16, 2016; http://www.nytimes.com/2013/10/17/opinion/kristof-this-is-your-brain-on-toxins.html</p> <p>Drum, Kevin; “Lead: America’s Real Criminal Element”; <i>Mother Jones</i>; February 2016; https://www.motherjones</p> <p>“Amazon Sells Skin-Lightening Creams That Contain Dangerous Mercury Levels”; January 19, 2019; http://www.prop65news.com/amazon-sells-skin-lightening-creams-that-contain-dangerous-mercury-levels/</p> <p>Johnston, Jill and Hricko, Andrea; “Industrial Lead Poisoning in Los Angeles: Anatomy of a Public Health Failure”; <i>Environmental Justice</i>; Volume 10, Number 5, 2017</p> <p>Group Project Check Ins</p>
<p>Week 6</p>	<p>Biomonitoring, Health Disparities in Exposures</p>
<p>Tuesday, February 26</p>	<p>Rachel Morello-Frosch and Bhavna Shamasunder, “Scientific Contestations Over “Toxic Trespass”: Health and Regulatory Implications of Chemical Biomonitoring” <i>Journal of Environmental Studies and Sciences</i>; 2016</p> <p>Scientists find link between group of pollutants and health problems in Inuit; January 2018; https://www.cbc.ca/news/canada/north/scientists-find-link-between-group-of-pollutants-and-health-problems-in-inuit-1.4494136. Please look at source paper, also. This is at https://www.sciencedirect-com.oxy.idm.oclc.org/science/article/pii/S0160412016309813</p> <p>Zota, A and Shamasunder B; “The Environmental Injustice of Beauty: Framing chemicals exposures through beauty products as a health disparities concern”; <i>American Journal of Obstetrics and Gynecology</i>; October 2017; http://www.ajog.org/article/S0002-9378(17)30862-1/fulltext</p>

Thursday, February 28	Air Pollution Friis, Chapter 10 (moodle) Bell, Michelle and Samet, Jonathan; "Air Pollution"; Chapter 13 in ed. Frumkin <i>Environmental Health From Global to Local</i> ; pp. 320-343 October 3, 2018; Take A Deep Breath And Read About How Bad LA Smog Really Is; https://laist.com/2018/10/03/take-a-deep-breath-and-read-about-how-bad-la-smog-really-is.php Greenstone, Michael and Fan, Clair; Air Quality Life Index; https://aqli.epic.uchicago.edu/reports/ ; Read Executive Summary Carrington, Damian; "Air Pollution: Everything you should know about a public health emergency"; November 5, 2018; <i>The Guardian</i> ; https://www.theguardian.com/environment/2018/nov/05/air-pollution-everything-you-should-know-about-a-public-health-emergency
Week 7	Producing Energy
Tuesday, March 5	Maxwell (Textbook), Chapter 4 Shamasunder et al; "Community-Based Health and Exposure Study around Urban Oil Developments in South Los Angeles"; <i>International Journal of Environmental Research and Public Health</i> ; January 2018; http://www.mdpi.com/1660-4601/15/1/138 Frumkin, Howard; "Energy and Human Health"; Chapter 14 in ed. Frumkin's <i>Environmental Health: From Global to Local</i> Guest Speaker: Nicole Wong, Redeemer Community Partnership, sponsored by Remsen Bird Funds Midterm Exam Questions
Thursday, March 7	In Class Midterm Exam
Tuesday, March 12	SPRING BREAK
Thursday, March 14	
Week 8	Producing Food
Tuesday, March 19	Pesticides and Other Organic Chemicals Group Project Check Ins Maxwell, Chapter 6 Robsen, Mark Gregory et al; pp. 494-495; DDT, An Example of Public Health Trade Offs; Ch. 18; in ed. Howard Frumkin; <i>Environmental Health from Local to Global</i> Friis, Chapter 7, "Pesticides and Other Organic Chemical" in <i>Essentials of Environmental Health</i> , 3 rd Edition Shamasunder, Bhavna; "Chlorpyrifos Contamination across the Food System: Shifting Science, Regulatory Challenges, and Implications for Public Health"; in <i>The Intersection of Food and Public Health: Examining Current Challenges and Solutions in Policy and Politics</i> ; Spring 2017; CRC Press/Taylor & Francis A Strong Case Against a Pesticide does not phase the EPA under Trump; https://www.nytimes.com/2017/05/15/health/pesticides-epa-chlorpyrifos-scott-pruitt.html

<p>Thursday, March 21</p>	<p>Modern Livestock Production Practices and Antibiotic Resistance Maxwell, Chapter 6 Continued</p> <p>Watch https://www.pbs.org/newshour/show/industrial-farming-techniques-can-breed-superbugs</p> <p>Pollan, Michael; “Our Decrepit Food Factories”; <i>New York Times Magazine</i>; December 16, 2007; http://michaelpollan.com/articles-archive/our-decrepit-food-factories/</p> <p>French, Hilary and Halweil, Brian; “Microbial Migrations”; <i>Orion Magazine</i>; Summer 2001; http://www.orionmagazine.org/index.php/articles/article/88</p> <p>Wallinga, David; Roadmap for a Future Where Antibiotics Still Work; https://www.nrdc.org/experts/david-wallinga-md/roadmap-future-where-antibiotics-will-still-work</p>
<p>Week 9</p>	<p>Drinking Water and Water Systems</p>
<p>Tuesday, March 26</p>	<p>Maxwell; Chapter 7, pg. 303-309</p> <p>California’s Water Use is All Over the Map; In California, water use is all over the map</p> <p>Sledge, Daniel and Mohler, George; “Eliminating Malaria in the American South: An Analysis of the Decline of Malaria in 1930s Alabama”; <i>American Journal of Public Health</i>; v103, n8; August 2013; http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2012.301065</p> <p>Ingraham, Christopher; “This is how toxic Flint’s water really is”; <i>Washington Post</i>; January 15, 2016; https://www.washingtonpost.com/news/wonk/wp/2016/01/15/this-is-how-toxic-flints-water-really-is/</p> <p>Guest Speaker, Angelo Logan or East Yard Communities for EJ</p>
	<p>Solid Waste Management</p>
<p>Thursday, March 28</p>	<p>Maxwell, Chapter 7, pp. 309-321</p> <p>The Environmental Toll of Plastics; October 26, 2017; http://www.ehn.org/plastic-environmental-impact-2501923191.html</p> <p>Simmons, Ann; “The world’s trash crisis, and why many Americans are oblivious”; <i>Los Angeles Times</i>; April 22, 2016; http://www.latimes.com/world/global-development/la-fg-global-trash-20160422-20160421-snap-htmlstory.html</p>
<p>Week 10</p>	<p>The Built Environment and Health</p>
<p>Tuesday, April 2</p>	<p>Maxwell; page 322-346</p> <p>Frumkin, Howard; “Urban Sprawl and Public Health”; <i>Public Health Reports</i>; May-June 2002</p> <p>Corburn, Jason; “Confronting the Challenges in Reconnecting Urban Planning and Public Health”; <i>American Journal of Public Health</i>; April 2004; https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.94.4.541</p>
	<p>Climate Change and Health</p>
<p>Thursday, April 4</p>	<p>English et al; “Environmental Health Indicators of Climate Change for the United States: Findings from the State Environmental Health Indicator Collaborative”; <i>Environmental Health Perspectives</i>; v117, n11; November 2009; http://ehp.niehs.nih.gov/0900708/?utm_source=rss&utm_medium=rss&utm_campaign=0900708</p> <p>IPCC Report; Chapter 8; <i>Human Health</i>; https://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter8.pdf</p> <p>Wallace-Wells, David; “The Uninhabitable Earth: Famine, economic collapse, a sun that cooks us: What climate change could wreak — sooner than you think”; <i>The New Yorker</i>; July 2017; http://nymag.com/daily/intelligencer/2017/07/climate-change-earth-too-hot-for-humans.html</p>

Week 11	Structural Racism and Environmental Health
Tuesday, April 9	Krieger; Structural racism and health inequities in the USA: evidence and interventions Claudio, Luz; “The Impact of Poverty, Disparity, and Injustice on Children’s Environmental Health”; chapter 57, pp. 528-536 in <i>Textbook of Children’s Environmental Health</i> Morello-Frosch, Rachel and Pastor, Manuel; “Environmental Justice and Vulnerable Populations”; in Frumkin, Howard; <i>Environmental Health from Global to Local</i>
Thursday, April 11	Guest Speaker, Jade Sasser (TBD)
Week 12	
Tuesday, April 16	Drinking Water and Environmental Justice in Los Angeles (Angelo and East Yard Communities for Environmental Justice)
Thursday, April 18	Case Studies in Women’s Health and Reproductive Health—Readings TBD
Week 13	
Tuesday, April 23	Group Project Presentations
Thursday, April 25	Group Project Presentations
Week 14	
Tuesday, April 30	Group Project Presentations; Course Wrap Up and Final Exam Review
Final Exam TBD	

Moodle

Please see our class Moodle page for readings that will guide each day’s discussion and content. You must read prior to class, as discussions, and your ability to pose questions, inform dialogue, and add in your thoughts, will be an important portion of your class participation grade.

Textbook

Understanding Environmental Health: How We Live in the World; Second Edition by Nancy Maxwell. The textbook is available for purchase at the Oxy bookstore, but you can also find it used at online booksellers since it has been in print for a few years.