

COMMUNITY ENVIRONMENTAL HEALTH

Community Health 188-05

Winter/Spring 2010

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*If you need to reach me outside of class, email is the preferred method of communication. In general, please allow 24-48 hours for a response, though I often reply more quickly.
- OFFICE HOURS** Thursdays, after class, or by appointment
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COURSE DESCRIPTION

“Some of the statistics... are indeed hellish, but abandoning hope is precisely what we must not do. To despair when confronted with the challenges we have created would only assure a human and natural calamity we still have the power to avoid. There are solutions, but we will not seek them or appreciate their urgency unless we first understand the problems.”
:: James Gustave Speth, 2005

This course invites students to consider the dynamic relationship between community health and the environment, especially the chemical environment. The next generation of public health professionals, scientists, and policymakers, more than ever, will need to contend with the implications of global climate change and the global spread and accumulation of chemical pollution without losing sight of the communities where these problems are felt. Through a series of historical and contemporary case studies, we will investigate the localized health and social impacts of such global environmental problems, as well as how communities are responding. We will examine the relationship between “natural” disasters and community environmental health. We will look at community health struggles against local factories, including an historic struggle that occurred not far from the Tufts campus, and think about the social, political economic and ecological factors that distribute pollution across people and places. We will track how, in recent decades, community struggles against polluters have intensified and extended far beyond those communities neighboring factories or agribusiness, for community environmental health is about much more than billowing smokestacks, pesticide plumes, or industrial waste and pose consequences to fertility rates and birth ratios and not just cancers. Perhaps, unexpectedly, we

also will study the less visible pollution experience of indigenous communities living in Alaska and the circumpolar North, who live far from the majority of polluting industries and yet bear a higher burden of industrial pollution, as well as the far flung communities affected by the global trade in high-tech electronics and “e-waste,” even though once hailed as a cleaner and greener industry. As well, we will consider breast cancer and how the community environmental health angle is too often lost beneath a focus on the individual. Throughout the course, students will uncover the social and economic roots shared by community environmental health problems, and will be asked to consider a range of policy, legal, advocacy, and business-side responses, including the rise of green chemistry and nanotechnology. Three books anchor the course, two hot off the presses: Brown’s *No Safe Place*. Grossman’s *Chasing Molecules* and McCormick’s *No Family History*. These will be supplemented by a diverse array of journalistic and scholarly articles, on-line videos, and films. Besides readings, reflective writing, tracking current community health news, and in-class discussions comprise the core course activities. As well, each student will select an issue to investigate. This will culminate in a final policy or “white paper,” but one that students will submit in installments to ensure opportunities for feedback and revision. Students also are asked to support each other’s learning and development as writers and communicators.

LEARNING GOALS

Through this course, students will:

::Appreciate how community environmental health is affected by a complex global web of mobile pollutants, migrating hazardous wastes, as well as by rapid changes in scientific understanding, policy, and production systems and manufacturing supply chains.

::Identify the interaction between environmental health problems and social, political, and economic problems.

::Contrast the experience of communities challenging localized versus diffuse and cumulative sources of pollution.

::Explore how communities are a vehicle for environmental change, knowledge creation, and new approaches to supporting environmental health, and the factors that impede such change.

::Define opportunities for community-focused solutions amidst growing awareness that environmental health problems are global in scope, and a marketplace that increasingly individualizes and commercializes their resolution.

::Identify the role of power, knowledge and binary thinking in debates about community environmental health, and assess alternative perspectives that chart a new course for science, policy and collective action.

::Converse and share among a productive community of learners, where we support each other’s learning, and hone our communication skills.

::Practice writing to discover a position of your own in relation to other writers, place two or more texts in conversation with another and then to communicate that position to others in a cogent way through weekly reflection papers and supplemental in-class activities.

::Revise your writing to clarify and develop your ideas.

REQUIRED READINGS

Three books are available for purchase at the bookstore:

Phil Brown's *No Safe Place*

Sabrina McCormick's *No Family History*

Elizabeth Grossman's *Chasing Molecules*

*Additional copies of these books will be placed on 3-hour reserve at Tisch. As of the start of the semester, McCormick's *No Family History* wasn't yet in the stacks, but is expected soon. I will keep you posted as it becomes available at Tisch.

*Additional readings and films will be posted on Blackboard, distributed in class, or are available on-line via hyperlinks in this document. One reading, due the week after spring break, will only be available on 3-hour reserve from the library—so plan ahead please.

OPPORTUNITIES FOR POINTS AND FEEDBACK

1. Class Participation (25%)

“If you have an apple and I have an apple and we exchange these apples then you and I will still each have one apple. But if you have an idea and I have an idea and we exchange these ideas, then each of us will have two ideas.”

:: George Bernard Shaw

A seminar is only interesting—and only worth prying ourselves out-of-bed before 9AM—when *everyone* contributes by showing up, doing the reading, preparing comments and questions, and sharing them with one another. I value class participation, as reflected by the fact that it accounts for a quarter of your final grade. How much you get out of your experience—and how much, as a class, we learn collectively—depends on your preparation outside of class and your active engagement with me and your colleagues during class. “Being prepared” means that (a) you have read the assigned readings actively so as to grasp their main argument and implications, and (b) you use the readings to inform your questions, comments, postings, or discussion.

:: On Discussion ::

In order to allow discussions to proceed smoothly, I have two requests. First, I ask everyone’s cooperation in developing and maintaining a supportive classroom environment that allows all students to engage in meaningful and serious discussion without fear of rebuttal or personal attacks. The topics we will discuss in this class pertain directly to issues that may affect any one of us on a deeply personal level, and so I ask that you maintain a respectful stance toward one another. Listen to one another. And, when you respond to others’ statements, please try to address the substance of the ideas, rather than making personal comments or criticisms.

Second, I ask that we not let the latest technologies interrupt our time together. Please extend your colleagues’ and me the courtesy of turning off your cell phones and save that otherwise pressing text message, tweet, IM, or you-name-it posting until after class. I promise to do the same.

I recognize the wide spectrum of ways that students might participate in a seminar. Students may contribute by asking questions about the reading assignments and topics, sending relevant newspaper or Internet articles of interest to the class, and/or actively participating in discussions and small group activities. I will also provide opportunities to engage in small group discussions, in-class reflective writing, and reading/commenting on each other’s work and ideas. If you still feel uncomfortable speaking in class and are worried about your participation, come talk with me afterwards (or during my office hours) where we can chat about additional strategies for increasing your comfort level and participation.

I will offer occasional feedback regarding your participation in my written response to your reflection papers so that you can gauge how you are doing, and/or may ask that you evaluate your own participation mid-course.

2. Weekly Reflection Papers (30%)

“How do I know what I think until I see what I say?”

::E.M. Forster

Each week, please submit a response paper that critically engages that week’s assigned readings. Some weeks, I will provide writing prompts or thought questions to jump start your reflections on the readings. Other weeks, you are free to engage the themes, issues, readings that speak to your interests so long as they meet the criteria established below. Your response paper is due the same day that we discuss the reading(s) it addresses; late papers will not receive full credit. I will not impose a minimum or maximum number of pages, as I want to free you to use writing as a way to deepen your understanding, and not to fill an arbitrary page quota. Instead, here is my two-fold criteria for successful reflections, though, I should note that brevity and clearly edited response papers are appreciated and it is possible to achieve this criteria in a single-spaced, well-written page:

First, a great reflection paper succinctly, and in your own words, explains the *implications* of each author or piece you are assigned to read/watch/consider. In doing so, you demonstrate that you understand what the key point or themes of each reading(s) is/are, but without directly summarizing them. This is an important and nuanced skill, one I hope you’ll refine as we move through the semester. To do so, you must offer some assessment of how that piece adds to our accumulating knowledge or understanding about key course themes and questions. In this way, your reflection transcends the typical “personal response,” and becomes one that is more scholarly and at the same time self-probing.

Second, after exploring the implications of each piece, your reflections should engage with the assigned readings/videos as a set. But go beyond comparing and contrasting. Imagine they were in conversation with one another. I invite you to build connections between pieces. How would authors of piece A, reflect on piece B? What is the role of theme A in pieces B and C? Here is also an opportunity to draw connections to other readings from class, insert your critique, and/or raise questions or points for clarification. That is, bring original thought or critique to bear on the topic. Using texts “in conversation” can be a starting point for thinking that builds on each piece’s point of view or argument, and that poses new issues or explores questions left unanswered by the authors themselves.

For weeks with only a single assigned reading, such as a book, use this space to engage with the full breadth of the author’s many arguments and to reach back into other readings from the course. How would this author respond to another idea, theme, text, film, etc?

All reflection papers will be graded on a plus, check, minus scale. To receive an A for the your response papers overall, at least six response papers must have earned a plus.

In class, be prepared to share your responses with your colleagues, and to offer feedback on their reflections. I have prepared materials to help make this a mutually informative endeavor.

***A total of **ELEVEN (11)** reflections will be due over the semester. This builds in ONE (1) freebie week—of your choosing— where you can skip submitting a reflection. Please note that I still expect you to complete the reading for that day, and we all will hold you accountable for your participation in class, like always.

3. Issue/Policy White Paper (45%)

This will be submitted in two parts. The first part (a topic proposal and annotated bibliography) counts for 15%. The second part (the full paper) counts for 30%. You will have the option to submit a draft for comment before final submission.

Overview: Community environmental health issues are diverse as they are complex, covering subject material far greater than what we could cover in a semester. Each student will select a community environmental health issue that he or she will investigate over the course of the semester. This assignment will provide you with an opportunity to explore an issue of interest to you in a way that builds on what you are learning through class and readings. It also will give you an opportunity to learn with and from your peers about issues that you might not otherwise know about. For topic ideas, I will provide you with a list of emerging issues that might pique your interest. You also will scan the news for environmental health issues facing communities right now. The paper will be submitted in installments over the semester to ensure you have opportunities for feedback from me and your colleagues in the seminar. First, you will submit a paper topic prospectus, and then later, the full paper, which you can submit in final form, or as a draft and then revise based on feedback, should you want that opportunity. The final paper should be in the range of 10-12* pages, and also should include a separate 1 page executive summary.

A more detailed description of the project will be distributed separately.

*Please note: Last year's students, to their surprise, learned that it is harder to write shorter papers than longer papers. Writing shorter papers requires investing time in editing and revisions that lead to a deeper understanding of the key issues and what you have to say about them. This process, in turn, generates more succinct writing, more cogent analysis, and better organization—all qualities of a well-written paper, all necessary components of effective communication that will be essential to your life beyond Tufts. Last year, we brought in two graduate-level writing fellows to describe the process of writing and revising policy white papers and executive summaries to help students with tone, format, and content of these particular forms. I plan to do the same this year as well.

Important Due Dates:

1. Topic Proposal and Annotated Bibliography by **9AM Tuesday, February 16th**
2. First (or, if you choose, Final) Draft by **9AM Monday, April 26th (last week of classes)**
3. (If you choose) Final Draft Post-Feedback due by **NOON Wednesday, May 12th**

***Note: Submission of your proposal and paper will be done electronically via The Digital Drop Box on Blackboard**

Late Work. All work is expected on time. Late work will be docked a ½ grade per day it is late. If you have a valid reason why you need more time, you must discuss this with me well before the due date. As is the general policy of other seminars in the Community Health Program, computer/printer failures, in general, are not valid excuses for late work. I strongly urge you to email yourself drafts of your work regularly, or to backup your work in some other way. Never trust that your hard drive won't melt down when you need it most. On this point, I write from experience!

Academic Integrity. I will take your work, and consider your ideas, seriously and thoughtfully, as I would another scholar. In return, please consider the legitimacy and authenticity of the work you submit to me, and on occasion, to your peers. Don't violate our trust, and more, don't violate the integrity of your own learning and growth. More often, however, when students commit plagiarism, their actions are unintentional, resulting instead from a lack of awareness of how to build upon and credit others' ideas. To prevent this, I expect all students in this course to be familiar with the University's policies on academic honesty and integrity (see: [The Academic Integrity Handbook](#)), to produce original work, and to credit data sources or reference materials appropriately. Pages 18-26 of the [Academic Integrity Handbook](#), which outline strategies for how and when to appropriately credit work as well as offers strategies to paraphrase others' ideas, will be particularly useful to students of this course. Please know that our reference librarian, Ragina Raboin, and I are both available to help you figure out how to accurately and appropriately cite sources and offer credit to those authors whose ideas informed yours.

Plagiarism, in the event it still happens, will be handled accordingly by a very saddened professor:

<http://uss.tufts.edu/arc/writingresources/penalties.asp>.

UNIT I: THE CHEMICAL ENVIRONMENT OF COMMUNITIES

Class 1. Course Orientation and Overview

January 21

Class 2. The Social and Historical Roots of Our Chemical Environment

January 28

To prepare for class, please read:

Sandra Steingraber. 1997. Two excerpts from *Living Downstream*. (Handout).
War (p. 87-117)
On our “*ecological roots*” (p. 266-268).

Lizzie Grossman. 2009. Selected chapters from *Chasing Molecules* (available at the bookstore and *hopefully* via 3-hour reserve at Tisch).
Chapter 3: Laboratory Curiosities and Chemical Unknowns. P. 41-54
Chapter 7: Out of the Frying Pan (p. 123-141)

Gerald Markowitz and David Rosner. 2002. Selected chapters from *Deceit and Denial: The Deadly Politics of Industrial Pollution*. (Handout)
Chapter 1: Industry’s Child (p. 1-11)
Conclusion (p. 299-306)

Supplemental Reading:

Want to know more about your ecological roots? If you are from the US, you can glance through www.scorecard.org and www.superfund365.org. On scorecard.org, enter the zip code of communities where you have lived, or now live. Who are the major polluters in your area? Then, on superfund365.org, a public art project, “visit” some of the Superfund sites documented by the project. (We’ll talk more about Superfund later in the class.)

This past December marked the 25th anniversary of the explosion at Bhopal, India. Do you know what happened there? Do you know the legacy of that accident for the people of Bhopal today and how that accident shaped the US right-to-know laws that Steingraber describes? Consider listening to or read the transcript of this **brief** Public Radio International radio broadcast re: the 25th anniversary of the Bhopal explosion and policy implications for US communities <http://www.pri.org/world/bhopal-legacy-in-us1758.html>

The EPA just released a summary of what was released in 2008, which you can see here: http://www.epa.gov/tri/tridata/tri08/national_analysis/pdr/TRI_key_findings_2008.pdf

Also, for an example of how TRI data is useful for communities, consider taking a quick look at this recently released report: Justice in the Air <http://www.peri.umass.edu/justice/>

Unit II: “Fenceline” Struggles for Community Health and Justice

“Understanding how communities struggle with, make disputed sense of, and change or accommodate to their local environments is... of considerable significance regardless of whether the source of environmental disruption is worldwide climate change or leaking toxic waste drums buried near an aquifer.” –Valerie Gunter and Steve Kroll-Smith

Class 3. An Historical Snapshot of Players, Power and Possibilities in Fenceline Communities **February 4**

To prepare for class, please read *No Safe Place* in its entirety. (Available at the bookstore or via 3 hour reserve at Tisch).

To supplement your reading, please check out the following scenes from *A Civil Action* on Youtube.com, starring John Travolta:

http://www.youtube.com/watch?v=PV_UwrEeEgI&feature=related

<http://www.youtube.com/watch?v=BrkgIOZEGX4>

Supplemental Reading:

Brown writes about Love Canal in *No Safe Place* and its relationship to the National Priorities List or Superfund program. **For more background, please consider reading:**

Erika Engelhaupt. 2009. Happy Birthday, Love Canal. *Chemical and Engineering News*. November 17, 2008. Available on Blackboard, or at:
<http://pubs.acs.org/doi/pdfplus/10.1021/es802376z>

Here’s 5 paragraphs on history of Superfund offered by the New York Times, which has compiled an archive of stories and history about the program. Visit:
<http://topics.nytimes.com/top/reference/timestopics/subjects/s/superfund/index.html?inline=nyt-classifier>

To understand the state of funding for Superfund now, and what’s at stake for communities, see:
Broder, John M. 2009. Without Superfund Tax, Stimulus Aids Cleanups. *New York Times*. April 26, 2009
www.nytimes.com/2009/04/26/science/earth/26superfund.html?_r=1&partner=rss&emc=rss

Class 4. Which Communities? The Distribution of Environmental Impacts across People and Places
February 11

To prepare for class, please read:

Gilbert Gee and Devon Payne-Sturges. 2004. Environmental Health Disparities: A Framework Integrating Psychosocial and Environmental Concepts. *Environmental Health Perspectives* 112: 1645-1653. Available at: <http://ehp.niehs.nih.gov/members/2004/7074/7074.pdf>

Rachel Morello-Frosch. 2002. Discrimination and the Political Economy of Environmental Inequality. *Environment and Planning C: Government and Policy* 20: 477-496 (website).

Alastair Iles. 2004. Mapping Environmental Justice in Technology Flows: Computer Waste Impacts in Asia. *Global Environmental Politics* 4 (4): 76-107 (website).

To supplement your reading of Iles—and to bring these issues into vivid detail—please browse the photographs and interactive materials I placed on the course Blackboard website. You can get to these websites via the “external links” section and open the folder labeled “Global Trade in e-Waste.” In particular, you might like to view the two photograph collections from National Geographer and from Greenpeace-CHINA.

Supplemental Reading re: eWaste:

Basel Action Network & Silicon Valley Toxics Coalition (February 2002): Exporting Harm: the Hi-Tech Trashing of Asia: <http://www.svtc.org/site/DocServer/technotrash.pdf?docID=123> as well as *The Digital Dump*
<http://www.ban.org/Library/TheDigitalDump.pdf#search=%22Digital%20Dump%22>

Two films *Exporting Harm* and the *Digital Dump* are now both at Tisch. , and the report by the same title: <http://www.ban.org/Library/TheDigitalDump.pdf#search=%22Digital%20Dump%22>

Also Tisch has the book *High Tech Trash* by Elizabeth Grossman, which students in last year’s class read and enjoyed.

NO class February 18th; Tufts “Monday”

Class 5. The Distribution of Environmental Impacts across People and Places, Part II -- “Natural Disasters”
February 25

Michelle Chen. 2009. Falling Through the Climate Gap. *In These Times*. July 27, 2009. Available at: http://www.inthesetimes.com/article/4553/falling_through_the_climate_gap/

Manuel Pastor, Robert Bullard, James Boyce, Alice Fothergill, Rachel Morello-Frosch, and Beverly Wright. 2006. *In the Wake of the Storm: Environment, Disaster, and Race After Katrina*. Supported by the Russell Sage Foundation. Available at: <http://www.russellsage.org/publications/Reports/080227.488787>

Supplemental Reading re: Climate Gap/Climate Justice:

Rachel Morello-Frosch, Manuel Pastor, James Sadd and Seth Shonkoff. 2009. *The Climate Gap: Inequalities in How Climate Change Hurts Americans and How to Fill The Gap*. Available at: http://college.usc.edu/perc/documents/The_Climate_Gap_Full_Report_FINAL.pdf

Samuel Myers. 2009. *Global Environmental Change: The Threat to Human Health (Executive Summary)*. UN Foundation and World Watch Institute (Report 181) <http://www.worldwatch.org/files/pdf/181-exec%20summary3.pdf>

J. Timmons Roberts and Brad Park. 2006. *A Climate of Injustice: Global Inequality, North-South Politics and Climate Policy*. MIT Press. <http://mitpress.mit.edu/catalog/item/default.asp?ttype=2&tid=11032>

Special issue of *Race Poverty and the Environment* on Climate Justice <http://www.urbanhabitat.org/cj/16-2>

Special issue of *Environmental Justice* on Climate Justice <http://www.liebertonline.com/toc/env/2/4?cookieSet=1>

Class 6. Intensification of Fenceline Struggles: Chronic, Cumulative Pollution and Non-Cancer Endpoints
March 4

To prepare for class, please read:

Dayne Nadine Scott. 2008. *Confronting Chronic Pollution: A Socio-Legal Analysis of Risk and Precaution*. *Osgood Hall Law Journal*. Available on Blackboard.

*Focus your attention on (a) background details about what’s happened in the community of Sarnia and (b) what Scott has to say about “chronic pollution.” Also, in class we’ll consider the commonalities and differences between Woburn and Sarnia, so give that topic some thought before coming to class as well.

Then, more scientific background on the community health issues raised by Scott, please skim the following three pieces.

Dr. Theo Colborn. 2007. *The ED You Should Really Be Worried About: Endocrine Disruption*. Available on Blackboard, or at: <http://gristmill.grist.org/story/2007/8/15/104934/059>

or, you can watch her deliver the same material in a lecture:

Video: Endocrine Disruption: The Male Predicament
<http://www.endocrinedisruption.com/endocrine.male.php>

Pete Myers. 2006. Good Genes Gone Bad. *The American Prospect*. March 19, 2006.
<http://www.prospect.org/cs/articles?articleId=11315> (more...)
The Faroes Statement: Human Health Effects of Developmental Exposure to Chemicals in Our Environment. 2007. Available at: <http://www.wecf.de/cms/download/2007/FarOesStatement.pdf>

Supplemental Reading re: non-cancer endpoints and chemical exposure, including endocrine disruption and fetal programming:

Sandra Steingraber. 2007. The Falling Age of Puberty in US Girls: What We Know, What We Need to Know. Available at:
http://www.breastcancerfund.org/site/c.kwKXLdPaE/b.3266509/k.27C1/Falling_Age_of_Puberty_Main_Page.htm

Sheldon Krimsky (a Tufts professor in UEP!) 2000. *Hormonal Chaos: The Scientific and Social Origins of the Environmental Endocrine Hypothesis*. Johns Hopkins Press.

Theo Colburn, Dianne Dumoski and J.P. Myers. 1996. *Our Stolen Future*.

Visit: the Endocrine Disruption Exchange <http://www.endocrinedisruption.com/home.php>

Unit III: Mobile and Global Contaminants

“How could the Arctic, seemingly untouched by contemporary ills, so innocent, so primitive, so natural, be home to the most contaminated people on the planet? I had stumbled upon what is perhaps the greatest environmental injustice on Earth.”

—Marla Cone, *Silent Snow: The Slow Poisoning of the Arctic* (Grove Press, New York, 2005)

**Class 7. “Receptor Communities” and the Global Spread of Persistent Pollutants
March 11**

Skim: Lizzie Grossman. 2009. Chapter 2: Swimmers, Hoppers, Fliers. (p. 19-40). From: *Chasing Molecules* (available at the bookstore).

Read: Altman, Rebecca Gasior. 2008. Dissertation Excerpt: Persistence and Subsistence: The Transboundary Legacy Contaminants in Alaska. Excerpted from: *Chemical Body Burden and*

Place-Based Struggles for Environmental Health and Justice. Department of Sociology, Brown University. About 40 pages (website).

To supplement your reading, please watch the very brief documentary “I Will Fight Until I Melt” to see St. Lawrence Island, Alaska for yourself: http://www.akaction.org/annie_alowa.htm

Class 8. Implications of Scitech Solutions for Communities? March 18

Read selected chapters from Lizzie Grossman’s *Chasing Molecules*

Preface

Chapters 1, 8, and 9, and

Epilogue

As you read: think about, as green chemistry initiatives gain traction, what’s at stake for communities dealing with the impacts of pollution, especially persistent/legacy pollutants? What else do communities need to be healthy and just places to live? What must accompany the revolution in green chemistry?

Here, the reading focuses on green chemistry as one prong of a multi-pronged solution to global pollution; there are other resources available that turn a critical eye toward other proposed technological fixes to environmental health issues, such as geo-engineering and climate change, or nanotechnology that, if you are interested, I can point you toward.

*****NO class March 25; spring recess*****

Class 9. The Role of Global Governance and Policy April 1

To prepare for class, please read:

James Gustave Speth. 2006. Selected chapters from *Red Sky at Morning*. (***)Only available via 3-hour reserve at Tisch)

Chapter 4: 1st Attempt at Global Governance p. 77-97

Chapter 5 Anatomy of Failure. Pp. 98-116.

Chapter 8 Attacking the Root Causes Pp. 151-171.

Chapter 9 Doing Good Governance Seriously. Pp. 172-190.

Megan R. Schwarzman and Michael P. Wilson. 2009. New Science for Chemicals Policy. *Science* 326 (5956): 1065-1066. At:

http://coeh.berkeley.edu/docs/news/science_policy_forum_112009.pdf

Finally, please skim the following report, ensuring you get the main gist:

Lowell Center for Sustainable Production. 2009. State Leadership in Formulating and Reforming Chemicals Policy: Actions Taken and Lessons Learned. <http://www.chemicalspolicy.org/downloads/StateLeadership.pdf>

To deepen your understanding about the dynamic UN Stockholm Convention on Persistent Organic Pollutants, see:

Jack Weinberg/International POPs Elimination Network. 2008. An NGO Guide to Persistent Organic Pollutants: A Framework for Action To Protect Human Health and the Environment From Persistent Organic Pollutants (POPs). Available on course website, or at : http://www.ipen.org/ipenweb/documents/book/ngo_guide_pops.pdf

Alaska Community Action on Toxics. 2009. Persistent Organic Pollutants in the Arctic: A Report for the Delegates of the 4th Conference of the Parties Stockholm Convention on Persistent Organic Pollutants <http://www.akaction.org/REPORTS/Stockholm%20Report%20on%20POPs%20in%20the%20Arctic%20FINAL.pdf>

Class 10. New Policy Frameworks: Rights and Generational Thinking April 8

To prepare for class, please read from the following four (4) selections:

Sandra Steingraber. 2009. Three Bets: On Ecology, Economy and Human Health. *Orion Magazine*. <http://www.orionmagazine.org/index.php/articles/article/4678/>

Toward Tomorrow Project. 2009. A Common Agenda for Health and the Environment—Goals for the Next Generation and Steps to Get There. At: <http://towardtomorrow.org/documents/CommonAgenda.pdf>

Tim Montague. 2008. How to Protect the Future (An overview of the report, Models for Protecting the Environment for Future Generations, released by the Science and Environmental Health Network and The International Human Rights Clinic at Harvard Law School.) Available at: http://www.precaution.org/lib/08/prn_protecting_the_future.081119.htm

If interested, here is the larger report: Science and Environmental Health Network and The International Human Rights Clinic at Harvard Law School. 2008. Models for Protecting the Environment for Future Generations. Available at: http://sehn.org/pdf/Models_for_Protecting_the_Environment_for_Future_Generations.pdf

Unit IV: Working Out Issues of Scale

“As individuals we are linked to the whole; how to connect the individual and the global, the personal and universal—this is the destiny and special challenge of our time.”

:: Jonathan Mann, Danile Tarantola, and Thomas Netter, 1992

Class 11. Community/Collective Dimensions of Disease

April 15

Read *No Family History* (available at the bookstore, and hopefully, via 3 hour reserve from Tisch.)

Class 12. What’s a Person to Do? Individuals, Awareness and Action

April 22

To prepare for class, please read:

Altman, Rebecca Gasior, Morello-Frosch, Rachel, Brody, Julia Green, Rudel, Ruthann, Brown, Phil, Averick, Mara. 2008. “Pollution comes home and gets personal: women’s experiences of household chemical exposures.” *Journal of Health and Social Behavior* 49(4): 417-435.

Available at: <http://www.asanet.org/images/journals/docs/pdf/jhsb/DEC08JHSBFeature.pdf>

Sandra Steingraber. 2007. “Environmental Amnesia: While Questioning What We Buy, We've Forgotten Where We Live.” *Orion Magazine*. Available at:

<http://www.orionmagazine.org/index.php/articles/article/2981/>

Andy Szasz. 2008. The Dangerous Delusions of “Inverted Quarantine: How People’s Impulse to Protect Themselves from Poisons Can Actually Hurt the Environment.” *The Chronicle Review*.

25 January 2008. Available at: <http://chronicle.com/cgi2-bin/printable.cgi?article=http://chronicle.com/free/v54/i20/20b01201.htm>

Please watch the following video segment of the Bill Moyers show, where he interviews Daniel Goldman, author of *Ecological Intelligence* (May 15, 2009) [about 20 minutes]

<http://www.pbs.org/moyers/journal/05152009/watch2.html>

**There’s also a written transcript of the interview that you can read/follow along with, if helpful: <http://www.pbs.org/moyers/journal/05152009/transcript2.html>

Class 13: Parting Commentary on Healthy Communities, Healthy Regions
April 29

Shobha Srinivasan, Liam O'Fallon and Allen Dearry. 2003. Creating Healthy Communities, Health Homes and Healthy People: Initiating a Research Agenda on the Built Environment and Public Health. *American Journal of Public Health* 93 (9): 1446-1450.
<http://ajph.aphapublications.org/cgi/reprint/93/9/1446>

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