Philosophy 497A Philosophy and the Environment
Spring Semester 2011 Monday 6 – 9 p.m. 308 Willard Building

Instructor:
Emily Grosholz, Professor of Philosophy, African American Studies and English
Member, Center for Fundamental Theory / Institute for Gravitation and the Cosmos
The Pennsylvania State University
Member, REHSEIS-SPHERE / CNRS / University of Paris Diderot – Paris 7
201 Sparks Building tel. : 1676 email: erg2@psu.edu
Office hours: T 1-2 and W 1:30-2:30 or by appointment

Book List:
Evelyn Fox Keller, *Making Sense of Life* (Harvard UP 2003)
Wangari Maathai, *The Challenge for Africa* (Pantheon Books, 2009)
Peter Godfrey-Smith, *Darwinian Populations and Natural Selection* (Oxford UP 2009)
Vandana Shiva, *Soil, not Oil: Evironmental Justice in an Age of Climate Change* (South End Press, 2008)
Mark Sagoff, *The Economy of the Earth: Philosophy, Law, and the Environment* (Cambridge UP, 2007)
Various websites (Growing Power, Green Belt Movement, COMPAS, World Agroforestry Center)

Blog dedicated to course:
https://www.personal.psu.edu/erg2/blogs/reasonable_measures

Guest lecture on March 14, by Nobel Laureate Roald Hoffmann, supported by the Schreyer Honors College and the Institute for Arts and Humanities: "Gauging Transformation: Construction of a Green Index." This lecture is the beginning of a long term project, the devising of a multifaceted, public index of 'greenness.' "Applied theoretical chemistry" is the way Roald Hoffmann likes to characterize the particular blend of computations stimulated by experiment and the construction of generalized models, of frameworks for understanding, that is his contribution to chemistry. In more than 500 scientific articles and two books he has taught the chemical community new and useful ways to look at the geometry and reactivity of molecules, from organic through inorganic to infinitely extended structures.

Course Description:
Philosophy of science in the twentieth century focussed on problems of epistemology: what are the specific features of scientific method and reasoning that make scientific knowledge distinctive, and especially effective? However, philosophers of science spent little time thinking and writing about the ethical and political dimensions of science. Twenty-first century philosophy of science is changing direction: the books on the reading list for this course are evidence of this shift. An important insight that emerges from these books is that science has for too long ignored the endogenous wisdom collected by traditional societies and dismantled by colonialism and modern technology. The current environmental and economic crises call for the novel synthesis of scientific and traditional knowledge, as well as a shift in the conception that philosophers of science have about their own aims, projects and responsibilities. The recent oil spill in the Gulf of Mexico shows with chilling clarity that we are facing a crisis whose magnitude is so great that citizens have trouble thinking about it, governments don't know how to align national and international resolve in the face of it, and scientists fail to intervene effectively in the political process. This problem arises in part because scientific knowledge has supplanted traditional knowledge, which has worked well for a hundred thousand years to keep human populations alive and stable. Philosophy can play a role in investigating how scientific and traditional knowledge might be better integrated, so that we can move more swiftly to address the problem of environmental destruction.

Course Aims:
*To introduce students to some of the central ideas in twentieth century philosophy of science and philosophy of biology, the background against which the books in this course may be understood. We will focus especially on the strengths and limitations of reductionist strategies in scientific research.
* To think about the limitations of our current concepts of scientific rationality, and how they might be integrated with the reasonable measures that women have used in the domestic sphere and that indigenous peoples have used in settled or nomadic ways of life for ten millenia.
*To think about the consequences of the industrial revolution, two world wars in the twentieth century, colonialism, and feminism for life on our planet.
*To articulate these discoveries through conversation in class and the more solitary exercise of written papers, short and long.

Requirements:
Because this a 400 level course for undergraduates (including philosophy majors), we will put a great deal of emphasis on student presentations and student research. Attendance and class participation are mandatory, especially since the class is small: every student counts. Students will write five short (2-3 pp.) papers analyzing the five books we will read in common, and then write a term paper of 20 pages on a topic to be chosen in consultation with the professor. They will add comments on five lectures (Logan, Becker, Baderoon, Rist, Mendum) archived on the blog https://www.personal.psu.edu/erg2/blogs/reasonable_measures. Towards the end of the semester, students will present a draft of the final paper, about 10 pages, in class for 30 minutes. All students must use some material from the books available on line at the research center in which Stephan Rist (one of last year's speakers) participates, NCCR North-South. http://www.nccr-north-south.unibe.ch. Class attendence, the short papers, and the blog comments together will count for 50% of the grade, and the final paper, along with the oral presentation, will count for 50% of the grade.

Policies:
Non-Discrimination Statement: The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, Pennsylvania State University, 328 Boucke Building, University Park, PA. 16802; Tel. (814) 863 0471.
Academic Integrity: Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Academic integrity is a basic guiding principle for all academic activity at the Pennsylvania State University, and all members of the University community are expected to act in accordance with this principle. Consistent with this expectation, the University's Code of Conduct states that all students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts.Academic integrity includes a commitment not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others. To protect the rights and maintain the trust of high standards of integrity and reinforce them by taking reasonable steps to anticipate and deter acts of dishonesty in all assignments. At the beginning of each course, the instructor must provide students with a statement clarifying the application of University and College academic integrity policies to that course.

Calendar:

Jan.	10	Introduction. Logic and Philosophy of Science. Theory Reduction; models of explanation; demonstration, experiment, and proof. Review essay of Sandra Harding, *Sciences from Below: Feminisms, Postcolonialities, and Modernities* (Durham and London: Duke University Press, 2008), and Emily Monosson, ed. *Motherhood, the Elephant in the Laboratory*, (Ithaca and London: Cornell University Press / ILR Press, 2008). *The Women's Review of Books,* Summer 2009. Review essay of Evelyn Fox Keller, *Making Sense of Life* (Harvard University Press, 2002 / 2003).
	17	Martin Luther King, Jr. Day, no class. Please listen to the lectures of Prof. Ikubolajeh Logan and Professor Christian Becker on the blog *Reasonable Measures*, and add your comments.
	24	Evelyn Fox Keller, *Making Sense of Life*, Part One.
	31	Evelyn Fox Keller, *Making Sense of Life*, Part Two, and Ch. 7.
Feb.	7	Wangari Maathai, *The Challenge for Africa*, Ch. 1-5. Please listen to the lecture of Prof. Gabeba Baderoon on the blog *Reasonable Measures*, and add your comments.
	14	Wangari Maathai, *The Challenge for Africa*, Ch. 6 and 11-14.
	21	Peter Godfrey-Smith, *Darwinian Populations and Natural Selection*, Ch. 1-4.
	28	Peter Godfrey-Smith, *Darwinian Populations and Natural Selection*, Ch. 5-8.
Spring Break		Please listen to the lectures of Dr. Stephan Rist and Dr. Ruth Mendum on the blog *Reasonable Measures*, and add your comments.
Mar.	14	Roald Hoffmann. "Gauging Transformation: Construction of a Green Index."
Mar.	21	Vandana Shiva, *Soil, not Oil*, pp. 1-76.
	28	Vandana Shiva, *Soil, not Oil*, pp. 77-144.
Apr.	4	Mark Sagoff, *The Economy of the Earth*, Ch. 1-5.
	11	Mark Sagoff, *The Economy of the Earth*, Ch. 1-5.
	18	Student presentations.
	25	Student presentations

Final Papers due by Tuesday May 3.