

**Econ 980o (previously 1386): Health, Education and Development
Spring 2008
Syllabus**

Course Information:

Lectures: Tuesday and Thursday 10:00 – 11:30, Sever 209

Section: TBA

Website: <https://www.courses.fas.harvard.edu/~ec1386/>

Instructor's Contact Information

Prof. Erica Field

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OH: Tuesday 3:30 – 5:30

Teaching Fellow:

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OH: Monday 3:00 – 5:00

Course Summary:

This advanced course addresses health and education issues in developing countries from the standpoint of economics, with a focus on applied microeconomic research and econometric methods. General topics include determinants of health and schooling investment, household models of production, and the role of specific health and educational inputs. Specific topics include: returns to education, gender differences in health, structural problems in delivery, education finance, technology adoption and behavioral change, AIDS, and the long-run impact of disease. Students in the course are required to complete a 14-16 page empirical research paper, which can be used to satisfy the writing requirement for majors.

Prerequisites: Economics 1010a (or 1011a) and 1123 (or 1126).

Requirements:

For each class, students will be assigned one article from an academic journal. Articles marked with a * on the reading list are required materials, while all other readings are optional. All readings except textbook chapters will be available on the course web site at least one week prior to lecture. Students will be expected to complete each assigned reading *prior to class* and contribute to class discussions. To facilitate preparation and discussion, a reading guide is posted on the class web site. Students are encouraged to jot down answers to the reading guide questions and bring these with them to class.

Grades will be based on a midterm exam, a 14-16 page empirical paper in lieu of a final exam, and short written assignments due each week. Instructions and due dates for all assignments are posted on the course web site. Every student must turn in a separate copy of each weekly assignment by the start of class on the assigned due date. If a student must be absent from class for a legitimate reason, problem sets must be turned in to the TF's mailbox by 9:00AM on the due date. No late assignments will be accepted and students may not miss more than two classes without a medical waiver.

Evaluation:

Weekly assignments: 40%

Midterm exam: 25%

Final research paper: 10%

Rough draft of final research paper: 15%

Class participation: 10%.

Guidelines for written assignments:Research paper

Students will be required to complete an empirical research paper, due at the end of the semester. The paper should be 14-16 double-spaced pages, excluding tables. Specific content guidelines are posted on the course website. Students who wish to use this assignment to fulfill the writing requirement must follow those guidelines. The topic of the paper must relate to the course materials and utilize micro-data on health or schooling outcomes from a developing country. Juniors considering senior thesis topics are encouraged to use this as an exploratory assignment for a potential thesis topic. A description of the research question and setting will be due on March 11. Appropriate areas of investigation and strategies for selecting a topic will be covered in section early in the semester. In addition, students should schedule individual appointments with the TF and/or instructor before finalizing paper topics.

Various components of the paper will be due throughout the second half of the semester as part of the weekly written assignments, including motivation and background, data description, and empirical strategy. These assignments should be used to develop actual sections of the paper in order to receive early feedback from the instructor and TF. On April 22, students are required to hand in a draft of their research paper in class. Drafts should contain all of the components of a completed paper and be proofread. At the end of class, each draft will be randomly assigned to another student in the class, who will then critique the paper according to the usual criteria and return the “referee report” to the author on the last day of class. Authors will then have a chance to revise their papers to address the critic’s concerns and add a concluding section (described in content guidelines) before handing in a final version at the end of reading period. Referee reports will be graded as standard weekly assignments, and paper grades will be based on the content of both the draft and the final paper.

Weekly assignments

Students will be asked to complete short written assignments each week of class (except for the weeks of midterm and paper draft). The assignments have three goals: (1) to familiarize you with data analysis and concepts from class; (2) to help you think through reading assignments; and (3) to keep you on track with respect to your term paper. As such, three of these assignments will be standard problems sets that explore empirical and theoretical topics covered in class. These problem sets will assume familiarity with intermediate econometrics and economic theory, and will involve empirical exercises using STATA software. Although basic concepts will be reviewed throughout, students who do not feel comfortable with technical discussions of empirical methods are discouraged from taking the class. Students may work in groups, but answers should be written up individually with sufficient indication of individual input.

In addition, a number of the weekly assignments will involve writing “referee reports” critiquing journal articles on the syllabus. These assignments will help you start to think carefully about research ideas, and also ensure that everyone is well prepared for class discussions. Each referee report should be approximately 3 pages double-spaced. Guidelines for each report are provided on the course web site in the assignments folder. Finally, during the second half of the semester weekly written assignments will involve turning in different components of the term paper that is due at the end of the semester to ensure that everyone stays on track.

Class Participation

During each class we will discuss one article in detail. Students are expected to attend class regularly and come to lectures having read that article and prepared for discussion. In borderline cases, attendance and the quality of classroom comments may be a factor in assigning grades. To help with readings, a reading guide is posted on the course website. It is recommended that students jot down answers to the reading guide questions before class.

Deadlines:

Research paper draft due date: April 22

Final paper due date: May 14

Outline of topics:**SECTION I: HEALTH**

January 31: Overview/ Health and development

Returns to Health

February 5: Labor market returns to health

February 7: Effect of health on schooling

February 12: Effect of health on schooling in presence of spillovers

Demand for Health

February 14: Do health shocks lead to poverty traps?

February 19: Is health a normal good?

February 21: Gender discrimination in the demand for health

February 26: Intra-household inequality and child health outcomes

February 28: Impact of education on health behavior

Focal topic: HIV/AIDS

March 4: Impact of information on health behavior

March 6: Impact on savings behavior

March 11: In-class mid-term

March 13: Impact on consumption behavior

March 18: Impact on economic growth

Health care provision

March 20: Rural health care provision

SECTION II: EDUCATIONDeterminants of Human Capital

April 1: Returns to education in developing countries

April 3: Life expectancy and schooling investment

April 8: Gender and education

April 10: Institutions and incentives to learn

April 15 – April 17: Education production and school inputs

Education systems and incentives: Potential solutions

April 22: Teacher incentives

April 24: Vouchers

April 29: Political economy of public resource provision

May 1: Ethnic diversity and public goods

Schedule of Assignments:

February 5 (due at beginning of class 2): Written assignment 1

February 12 (due at beginning of class 4): Written assignment 2

February 19 (due at beginning of class 6): Written assignment 3

February 26 (due at beginning of class 8): Written assignment 4

March 4 (due at beginning of class 10): Written assignment 5

March 18 (due at beginning of class 14): Written assignment 6 – including **one paragraph description of paper topic** (required content detailed on PS 6)

April 1 (due at beginning of class 16): Written assignment 7

April 8 (due at beginning of class 18): Written assignment 8

April 15 (due at beginning of class 20): Written assignment 9

April 22 (due at beginning of class 22): Rough draft of term paper (2 copies – one without name!)

April 29 (due at beginning of class 24): Written assignment 10 (referee report of classmate's paper)

May 14 (LAST DAY OF READING PERIOD): Final term paper due in Sebastian's folder by 5:00PM

Reading list:

Text: Debraj Ray, *Development Economics*, Princeton: Princeton University Press, 1998.

SECTION I: HEALTH**Class 1: The Relationship between health and economic development**

* Preston, Samuel (1975). "The changing relationship between mortality and level of economic development." *Population Studies* 29(2): 231-48.

Fogel, Robert W. (1994). "Economic Growth, Population Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy," *American Economic Review* 84(3):369-95.

Returns to Health**Class 2: Labor market returns to health** (Ray, Chapter 8)

* Thomas, Duncan, et al. (2003). "Iron Deficiency and the Well-Being of Older Adults: Early Results from a Randomized Nutrition Intervention," unpublished manuscript, UCLA.

Class 3: Effect of health on schooling

* Field, Erica, Omar Robles and Maximo Torero (2007). Iodine deficiency and schooling attainment in Tanzania. Mimeo. http://www.economics.harvard.edu/faculty/field/files/Field_IDD_Tanzania.pdf

Class 4: Effect of health on schooling in presence of spillovers

* Kremer, Michael, and Edward Miguel (2004). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities," *Econometrica* 72(1): 159–217.

Class 5: Do health shocks lead to poverty traps?

* Mohanan, Manoj (2008). "Consumption smoothing and household responses: evidence from random exogenous health shocks,":

http://www.people.fas.harvard.edu/~mohanan/Mohanan_PaperI_HealthShocks_Jan2008.pdf

Demand for health**Class 6: Is health a normal good?**

* Case, Anne (2003). "Does money protect health status? Evidence from South African pensions," forthcoming in Wise (ed.) *Frontiers in Aging*, University of Chicago. NBER Working Paper 8495.

Class 7: Gender discrimination in the demand for health

* Qian, Nancy (2004). "Missing Women and the Price of Tea in China: Sex-specific income and Sex Ratios". http://www.econ.brown.edu/fac/Nancy_Qian/Papers/misswomen_2005_10_3.pdf

Class 8: Intra-household inequality and child health outcomes

* Esther Duflo (2003). "Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa," *World Bank Economic Review* 17(1): 1-25.

Class 9: Impact of education on health behavior

* Wolfe BL and JR Behrman (1987). "Women's schooling and children's health: Are the effects robust with adult sibling control for the women's childhood background?" *Journal of Health Economics* 6(3):239-54.

Kremer, Michael and Edward Miguel (2004). "The Illusion of Sustainability."

<http://post.economics.harvard.edu/faculty/kremer/webpapers/illusion.pdf>

HIV/AIDS Epidemic**Class 10: Effect of Information on Health Behavior**

* Dupas, Pascaline (2007). "Relative Risks and the Market for Sex: Teenage Pregnancy, HIV, and Partner Selection in Kenya":

http://www.dartmouth.edu/~pascaline/Relative%20Risks%20and%20the%20Market%20for%20Sex_10.07.pdf

Class 11: Impact on Savings

* Thornton, Rebecca (2005). "The Demand for and Impact of Learning HIV Status: Evidence from a Field Experiment": <http://www.cgdev.org/doc/event%20docs/HIV%20Testing.pdf>.

Class 12: Midterm**Class 13: Impact on Consumption**

* Linnemayr, Sebastian (2007). "Consumption smoothing and HIV/AIDS: the case of two communities in South Africa":

Class 14: Impact on Growth

* Young, Alwyn (2005). "The Gift of Dying: The Tragedy of AIDS and the Welfare of Future African Generations." *Quarterly Journal of Economics* Vol. CXX(2): 423-466.

Rural health care provision**Class 15:**

* Duflo, Esther, A. Banerjee and A. Deaton (2004). "Wealth, health, and health services in rural Rajasthan." *American Economic Review Papers and Proceedings* Vol. 94(2): 326-330.

SECTION II: EDUCATION**Determinants of human capital investment****Class 16: Returns to education in developing countries**

* Duflo, Esther (2001) "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *American Economic Review*, 91(4): 795-813: http://econ-www.mit.edu/faculty/download_pdf.php?id=442

Class 17: Life expectancy and schooling investment

* Jayachandran, Seema and Adriana Lleras-Muney (2007). "Longevity and human capital investments: evidence from declines in maternal mortality":

http://www.princeton.edu/~alleras/papers/MMR_Jayachandran_LlerasMuney.pdf

Class 18: Gender and education

* Field, Erica and Attila Ambrus (2005). "Early marriage and female schooling in Bangladesh": <http://post.economics.harvard.edu/faculty/field/papers/EarlymarEducation-1205.pdf>

Class 19: Institutions and incentives to learn

* Hoff, Karla and Pandey (2004). "Durable Inequalities: An Experimental Investigation of Indian Caste." World Bank Policy Research Working Paper 3351: http://www.wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/07/22/000112742_20040722150100/Rendered/PDF/wps3351.pdf

Education production**Class 20: School inputs**

* Hanushek, Eric (1995) "Interpreting Recent Research on Schooling in Developing Countries," *World Bank Research Observer*, 10(2): 227-246.

* Glewwe, Paul, Michael Kremer, Sylvie Moulin and Eric Zitzewitz (2004) "Retrospective vs. Prospective Analyses of School Inputs: The Case of Flip Charts in Kenya," *Journal of Development Economics*, 1(6): 251-268.

Class 21: Teachers

* Angrist, Joshua and Victor Lavy (1999) "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement," *Quarterly Journal of Economics*, 114(2): 533-575.

* Banerjee, Abhijit, Shawn Cole, Esther Duflo, and Leigh Linden (2003) "Remedying Education: Evidence from Two Randomized Experiments in India," Poverty Action Lab Paper #4: http://www.povertyactionlab.com/papers/banerjee_cole_duflo_linden.pdf

Education systems and incentives: Problems and potential solutions**Class 22: Teacher incentives**

* Karthik Muralidharan and Venkatesh Sundararaman (2007). "Teacher Incentives in Developing Countries: Experimental Evidence from India". Mimeo Harvard University: http://www.people.fas.harvard.edu/~muralidh/Karthik_Muralidharan_JMP_Teacher_Incentives_In_Developing_Countries.pdf

Karthik Muralidharan Michael Kremer, Nazmul Chaudhury, Jeffrey Hammer, and Halsey Rogers (2005). "Teacher Absence in India: A Snapshot." *Journal of the European Economic Association*, April-May 2005, Volume 3: 658-667

Class 23: Vouchers

* Kremer, Michael, Josh Angrist, Eric Bettinger, Erik Bloom, and Elizabeth King (2002) "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment," *American Economic Review*, 92(5): 1535-58.

Class 24: Political economy of public resource provision

* Jimenez, Emmanuel and Yasuyuki Sawada (1999). "Do Community-Managed Schools Work? An Evaluation of El Salvador's EDUCO Program," *World Bank Economic Review*, 13(3): 415-41. <http://www.worldbank.org/research/pdf/paperno8.pdf>

Kremer, Michael, Sylvie Moulin, and Robert Namunyu (2003) "Decentralization: A Cautionary Tale," mimeo: http://www.povertyactionlab.com/papers/Decentralization_Cautionary_Tale.doc

Class 25: Ethnic diversity and public goods

* Miguel, Edward and Mary Kay Gugerty (2005). "Ethnic Diversity, Social Sanctions, and Public Goods in Kenya." *Journal of Public Economics* 89 (11-12), 2325-2368