University of Illinois - Department of Economics
Economics 545: Economics of Education, Health and Human Capital
(Also listed under Educational Organization and Leadership 518)

Professor Elizabeth Powers
Fall 2009

Course Objectives
Human capital is the collection of attributes that an individual combines with their own effort to produce output, whether valued explicitly in a formal market or not. Education and health are major determinants of the stock of human capital, but interest is growing in the roles of novel attributes and their possible inputs. This course provides an introduction to the economic theory of human capital and its application in the study of various topics, which may include fertility, discrimination, education, health, and migration. Students will learn the basic theory underlying these topics and various empirical approaches to hypothesis testing.

Class Meetings
Mondays and Wednesdays, 11:00 a.m.-12:20 p.m., 317 David Kinley Hall, August 24, 2009 through December 9, 2009.

Required Course Materials
Book chapters, journal articles, and working papers are assigned. There is no textbook. Most assigned published articles are available in electronic form through the Library Gateway. Assigned working papers are available from the Social Science Research Network or NBER websites (downloads are free to students with a University of Illinois affiliation). The journals are also available in hardcopy in the library. Book chapters and other harder-to-find items are placed on reserve in the Business & Economics Library. You may need a copy of the software program Stata. You can get a student discount if you purchase through the CITES Software WebStore at http://webstore.uiuc.edu. Obtain the ‘large/intercooled’ version (the student version may not be able to handle the assigned data sets).

Other Resources
I strongly recommend the netcourses in the Stata statistical package that are offered by Stata Corporation through its website (www.stata.com).

Course Prerequisites
Completion of the Ph.D. first courses in microeconomics and statistics/econometrics is highly recommended.

Grades
The course grade will be determined by the total points earned over the semester. I use a four-point grading scale with pluses and minuses.

Class Rules
Successful students come to class prepared. Excessive absences will be reported to the college dean, in accordance the Code of Policies and Regulations Applying to All Students (Section 34).

I do not provide opportunities to make up missed exams or assignments. In particular, late assignments will not be accepted and extra credit opportunities will not be extended in lieu of scheduled assignments. Exceptions will be granted only under special circumstances, such as excused medical absences as defined in the Code of Policies and Regulations Applying to All Students (Section 34).

Consistent with University policy, violations of academic integrity will be considered a serious offense. A student who is discovered to have violated academic integrity in this course will be subject to the penalties discussed in Section 33 of the Code of Policies and Regulations Applying to All Students. Examples of penalties which may be imposed include a failing grade for the course.

Collaborative learning activities are encouraged, but activities such as copying from classmates’ assignments or plagiarism constitute academic integrity violations. *I do not accept papers and assignments that have been prepared in large part for other courses in fulfillment of assignments for this course.*

Special Needs
Please contact me by the second class if you will require accommodation for special learning needs.

Class Web Site
Your primary source of information about the class is the class web site. Check it frequently for updates and announcements at [https://netfiles.uiuc.edu/epowers/www/Econ545.htm](https://netfiles.uiuc.edu/epowers/www/Econ545.htm).

Office Hours and Contact Information
Office hours are on Mondays from 12:30-2:00 p.m., Wednesdays from 12:30-2:00 p.m., and by appointment. My office is in #413 David Kinley Hall. E-mail is the preferred method of first contact for most matters (epowers@uiuc.edu). It is always a good idea to contact me to indicate that you are coming to office hours.

Course Requirements
You will be graded on four types of assignments:

1. **Two homework assignments.** You will manipulate and analyze data from the Mexican Family Life Study using the *Stata* program.

2. **Participation in class discussions and two required in-class presentations.** You are expected to read assigned materials before class and arrive prepared for discussion. You will also prepare a brief discussion on your preliminary proposal topic and will give a 15-minute presentation on your final project proposal (see item 3).
(3) **A written paper proposal.** The goal is to develop a well-defined paper topic, convince yourself and others that it is sufficiently interesting for you to devote your time to, and think through potential pitfalls in concept and implementation. *The projects must employ the Mexican Family Life Study.*

(4) **A final exam.** The final will test your understanding of the theory of human capital and your knowledge of the literature.

### Summary of Graded Items:

<table>
<thead>
<tr>
<th>Item</th>
<th>Due Date</th>
<th>Points Possible</th>
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</thead>
<tbody>
<tr>
<td>Homework #1</td>
<td>10/09/09</td>
<td>75</td>
</tr>
<tr>
<td>Homework #2</td>
<td>10/26/09</td>
<td>75</td>
</tr>
<tr>
<td>Preliminary proposal presentation</td>
<td>10/14/09</td>
<td>100</td>
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<tr>
<td>Class participation</td>
<td></td>
<td>200</td>
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<tr>
<td>Project proposal and presentations</td>
<td>12/07/09-12/14/09</td>
<td>300</td>
</tr>
<tr>
<td>Final Exam</td>
<td>12/11/09-12/18/09</td>
<td>250</td>
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<tr>
<td>TOTAL POSSIBLE</td>
<td></td>
<td>1000</td>
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</tbody>
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Course Outline

I. Introduction to Human Capital Theory

II. Parental Investment in Children
   A. The quantity-quality fertility model
   B. The investment decision
   C. Intergenerational income mobility and inequality

III. Investment in and Returns to Education
   A. Returns to education: introduction and overview
   B. Returns to education: early approaches
   C. Returns to education: twin/sibling models
      i. Some examples
      ii. Critiques
   D. Returns to education: other approaches
      i. Some examples
      ii. Critiques
   E. Returns to education: variation by type of educational institution
   F. Returns to education: variation by race and sex

IV. Education Policy: Does Money Matter?
   A. Introduction
   B. Money doesn't matter
   C. Money matters

V. Health and Human Capital
   A. The demand for health and health behaviors
   B. Returns to birthweight
   C. Economic status and children’s health
   D. Adult disability and earnings

VI. Towards a general theory of human capital development
   A. Cognitive and noncognitive factors in the human capital model
   B. Estimation of the human capital development function
Key:  *on reserve in undergraduate library;  ► required reading.

I. Introduction to human capital theory


II. Parental investment in children

A. The quantity-quality fertility model


*Becker, Gary, "The Demand for Children" Chapter 5 in A Treatise on the Family.

B. The investment decision


C. Intergenerational income mobility and inequality


- C. Intergenerational income mobility and inequality


III. Investment in and returns to education

A. Returns to education: introduction and overview


B. Returns to education: early approaches

*Econometrica* 45 (1, Jan.), 1-22.


**C. Returns to education: twin/sibling models**

**i. Some examples**


**ii. Critiques**


**D. Returns to education: other approaches**

**i. Some examples**


**ii. Critiques**


**E. Returns to education: variation by type of educational institution**


**F. Returns to education: variation by race and sex**


**IV. Education Policy: Does Money Matter?**
A. Introduction


B. Money doesn't matter


Ballou, Dale, 1996, "Do Public Schools Hire the Best Applicants?" *Quarterly Journal of Economics* (February)


C. Money matters


V. Health and Human Capital

A. The Demand for health and health behaviors


B. Returns to birthweight


C. Economic status and children's health


C. Adult disability and earnings


VI. Towards a theory of general human capital development

A. Cognitive and noncognitive factors in the human capital model


B. Estimating of the human capital development function
