

The Possibilities Frontier



Undergraduate Economics Association Newsletter

Vol 1 Issue 1 — 11/1/03



**IN THE
HALLWAYS
OF
EVANS**
-
**Richard
Gilbert**

It seems to me that undergraduate students do not usually have enough time to get to know even the professors they take classes from to say nothing about other faculty members. Richard Gilbert is not teaching any undergraduate classes this semester but he is an important person in our department - he has been a professor since 1976 and the Department Chair since 2002. He also worked for the Antitrust Division of the US Department of Justice for two years in the 1990s. Professor Gilbert has an undergraduate degree in electrical engineering but for the later part of his life he has been fascinated by economics - a subject that provides a "unique way of thinking about the world. As the Department Chair Professor Gilbert spends a lot of time managing the department and making sure that the faculty, staff, and students receive what they deserve - only the best. And on his free time - amazing to me how he has any! - Professor Gilbert loves skiing, tennis, and long - 50+ miles - bike rides. (By the way he is always looking for company on those trips...) Richard Gilbert has two children, Alison, who attended Wesleyan University and is pursuing a teaching credential in math and David, who is currently attending Claremont McKenna College and is majoring in Integrative Biology. If you ever have any doubts about why you are studying economics or why this subject is absolutely the best - Professor Richard Gilbert is the person to go to; he is very friendly and full of enthusiasm about economics.

What are your responsibilities as the Department Chair?

Upcoming UEA events:

Professional Affairs Meeting: Monday, 3rd, 6 pm, 283 Dwinelle

Academic Affairs Meeting: Tuesday, November 4th, 6 pm, Cafe Milano

Dinner and Presentation With Robinson's May: Tuesday, November 4th, 7 pm, location TBA

Econ versus Business: Tuesday, November 18th, location TBA

There are a lot of administrative things to be done. Routine things, such as personnel issues, promotions, and staffing classes: who wants to teach what and when. Recruiting new faculty is a top priority. With new faculty we can expand our course offerings and maintain our reputation as a top economics department. You can see that we manage to attract great faculty. We recruited four new faculty last year, and they're all absolutely extraordinary. Another part of my job is to coordinate Department support activities with our administrative staff. Our staff are essential to the Department's teaching and research missions. They help in clearly visible ways, such as student advising. They are also behind the scenes, making sure that the Department stays in one piece. They are fantastic. They help the faculty get what they need to do their jobs and they make sure that the teaching program is in order. We work hard to keep the faculty that we have. The Department is a great place, but it's a full time effort to keep it great. We are a faculty of thirty-nine or so for seven hundred majors and probably another six thousand students who come through the Department every year. We try to do the best we can given our student-faculty ratio.

When did you first become interested in economics?

I took one economics course as an undergrad. I really liked it, but I didn't really know what it was about. Somehow it lodged in the back of my brain because I often thought about economics even when I was enrolled in an electrical engineering Ph.D.

Continued on page 2

program. In my engineering graduate program there were no class requirements after the qualifying exams. So I enrolled in some economics classes, and became more and more interested in economics. Eventually I concluded that I wanted to pursue economics as a profession and I wrote a thesis in economics. I found that my experience is not unique. Economics graduate programs often attract students who have had some exposure to economics, but maybe majored in mathematics, physics, or even philosophy, English, or whatever. Economics attracts a lot of different types.

What do you think an undergraduate degree in economics is good for?

I think it's a fantastic degree. What economics offers is a way of thinking about the world that you don't get in other fields. Economics teaches basic concepts such how to use scarce resources and how to consider opportunity costs. Economists learn how to think about what I call "higher order consequences". For example, if there is a tax on Internet sales, does it matter whether the tax is paid by the consumer or the seller, and what does it mean for the economy? Most non-economists won't even try to think through the consequences for supply and demand. This type of thinking is useful in almost anything you might do. Certainly anyone in business or public policy should know about resource allocation and basic macroeconomics. Many legal fields, such as contracts, torts, and antitrust, rely heavily on basic economic reasoning. Health economics is a rapidly growing field. I don't think there's any other discipline that has penetrated as many areas as economics has. Economics is also a great education because the basic concepts don't depreciate rapidly. Supply and demand are here to stay. I took courses as an electrical engineer that will never be useful. They're completely obsolete. The economics classes you take, I guarantee you, will not be obsolete. The techniques may change. But the basic concepts are here to stay. Macroeconomics and microeconomics will always be here; so will the applied field, such as public finance, labor, international trade, etc. There will be change. Thirty years from now economists will know things that we never even thought about today, but economics will not be a totally different field.

The Economics program at Cal gives people a lot of freedom to choose their classes. How should students go about designing their program?

An economics degree can be different things to different people. We have a program that allows people to choose. Students can specialize in a field, they can pursue highly analytical classes, or they can sample many different classes in or outside economics. A good way to choose the classes that are right for you is to talk to an advisor. I don't think our students do that enough. Go in to see somebody and say, - This is what I'm interested in. What is the best combination of classes for me, given my interests? - If you have no idea what it is you want to do, the program is designed to help you figure that out. A good way to begin a dialog with faculty is to ask for career advice.

What can undergraduates talk to you about?

Students can, of course, come to me for career advice. Being the Department Chair, I would also welcome any kind of constructive feedback about our teaching program — anything that is not in the category of "I think everybody should get A's." You can also talk to Jim Powell, who is the Undergraduate Chair in the department. If, for some reason, something isn't working about a class, tell us about it, preferably close to the beginning of the semester, so we can do something about it. I'm also delighted to talk to students about my research interests in competition policy, research and development, and intellectual property.

—*Vera Belova and Tatyana Deryugina*

Class Review: Game Theory in the Social Sciences

Besides Econ 104, we are fortunate enough to have a SECOND game theory oriented course offered in Spring 2004, Economics C110. Cross-listed with the political science and interdisciplinary studies departments, the professor for the course, Robert Powell, has been teaching it here for ten years and is one of the "founders" of the course.

The good news about prerequisites for Economics C110 is that there really aren't any. Because it's a cross-listed course, it would be hard to have a set of prerequisites that wouldn't exclude people in one of the majors. Consequently, you don't need to know calculus, economics, or political science to take the course, although knowledge of any combination of the three would undoubtedly be helpful.

Continued on page 3

Class review: Advanced Microeconomic Theory

If you're thinking that any class with the words "advanced" and "theory" in the title is hard, you're absolutely right. As Professor Shachar Kariv, who is teaching the class next semester, puts it "No pain, no gain. I promise you some pain, but there will also be tremendous gain for anyone who puts in the work." You don't have to be a math and/or economics genius to take the course. Even if you never got past Math 1B or haven't had Econ 101A (catalog prerequisite) but are willing to put in extra work to catch up – you are a perfect candidate for this class. Professor Kariv believes that willingness, eagerness, and hard work are the only requirements for the class. Some knowledge of mathematics would be beneficial but it is more important to have a deep understanding of things like functions and derivatives than to be able to do long and sophisticated calculations.

Professor Kariv promises to put in extra time to bring everyone up to an adequate level of mathematical (and even economic – if necessary) understanding to make it through the course; there will be 1-2 extra classes in the first couple of weeks for those who need extra help with the math.

Econ 104 is a very technical (as opposed to Econ C110) introduction to Game Theory, and Professor Kariv believes that this is the only way to teach this subject. The goal of it is to show undergrad students what "serious" economics is and what people do in econ grad school. Professor Kariv plans to make the course similar to a core graduate course in economics, namely 201A (or perhaps just a bit more in-depth). So anyone who is serious about econ and wants to learn something "real" (seriously, how much do we actually learn in our introductory undergraduate courses?) should definitely take this class BUT this is the only reason to do so. At least when Shachar Kariv is teaching it.

We asked Professor Kariv about the schematics. Here's how the class is structured:

Problem sets: Graduate level. 1 per week, expect to spend 8-10 hours on it – first working alone (you won't be able to solve everything without help), then working in a group and finally re-solving them after you get the solutions (not the way most of us do it...). NOT GRADED. Why? Because we are adults!

Midterms: two or three, perhaps will be picked by popular vote. Nothing unexpected but the only way to pass is to follow the Problem Set guidelines above. NOT CUMULATIVE. Why? Because we forget things!

Final: not cumulative. Same reason.

Attendance: not taken. Why? See Problem Sets.

Book: there may not be a book, in which case the material will be given out as handouts.

The Conclusion: We're taking this class! No, seriously, we're signed up already.

And if you are not completely intimidated by now and want to know more, you can talk to Professor Kariv himself, he is very nice and his office is in 505 Evans.

<http://socrates.berkeley.edu/~kariv/Teaching.htm>

— Tatyana Deryugina

Class Review: Game Theory, continued from page 2

The class is structured more like an economics class than a political science class, which is good for the econ majors because we're used to it! The structure of the class doesn't change significantly from year to year, and there's a lot of past material available on the web. The basic breakdown is:

Problem sets: 5-6 per semester, worth 15% of the grade (last year)

Midterm: only one, worth 35% of the grade.

Final: cumulative, worth 50% of the grade.

Books: two, one with emphasis on game theory and economics, another with emphasis on game theory and political science.

Website from Fall 2002:

<http://www.polisci.berkeley.edu/Courses/coursepages/ps135/index.html>

Because it's an interdisciplinary course, two books are used to give different perspectives on the topics. One focuses on economic applications and the other concentrates on political science applications. In the past students have had the option of choosing one of them to reinforce the concepts learned in class. For this reason, the class will not follow either one very closely, making it crucial to attend lectures. Since the class is at 8AM, this may be difficult for anyone who dislikes mornings. The problem sets are not meant to be hard; rather, they aim to highlight the important

Continued on page 5

Seminars Explained!!

For those of you who have ever wondered what goes on behind the scenes of economics research, an economics seminar is the place to be. There are usually about ten happening per week, starting at ten past the hour and lasting about two hours each. Here's a sample of past topics covered: "Are Americans Saving 'Optimally' for Retirement?", "Leadership Turnover and Corruption: When Do New Leaders Fight Corruption?", and "University Patenting and the Pace of Knowledge Exploitation". You're almost certain to find something that intrigues you.

So what on earth *is* a seminar? Good question. A seminar is defined as "a meeting for giving and discussing information", and that's precisely what it is. It's free. It's open to the public. And you may just get something useful out of attending one (or two).

There are three types of seminars that happen here at Berkeley, namely:

1. A graduate student in economics presents his or her research, including design and results. Hey, he or she may be your GSI!
2. A professor (sometimes from other Universities such as Princeton or MIT) presents his or her research.
3. A group of UC Berkeley professors from a particular area of economics discuss general trends, news, their contribution in that field, as well as issues relevant to future research.

The best part about seminars is that they take place in a very informal environment. During a 12-2 seminar, many were eating their lunch while listening to recent developments in Behavioral Economics. The audience (consisting mainly of graduate students and professors) asks questions about data and results and in some cases gives suggestions to the researcher. One definitely gets a feeling of what the theories in textbooks that we now take for granted must have gone through at the time of their origination.

Although the seminars may get quite technical, the results and implications should be clear to anyone who's had at least a semester of statistics. A good rule of thumb is if you don't know a word in the title, don't go or gather some preliminary information about the subject.

The schedule is available on the department's website at econ.berkeley.edu (just click on "courses and seminars"). Most of the time, copies of the paper presented during the seminar are available in advance in 611 Evans.

—Tatyana Deryugina



Clive W.J. Granger

Get to
know your
Nobel —

Clive
W.J.
Granger,



Robert F. Engle

Robert F. Engle

Nobel Laureates, Economics, 2003

Time series, data which map the value of economic variables as they change over time, form the basis for most empirical research in both macroeconomics and finance. This year, the Nobel committee chose to award the Prize in economics to two people, Clive W.J. Granger and Robert F. Engle, who have deepened our understanding of economic time series, which work has led to many applications.

Clive W.J. Granger, born in Swansea, Wales, studied mathematics and statistics at the University of Nottingham, receiving his PhD in 1959. Granger has written a number of books on econometrics, including *Empirical Modeling in Economics: Specification and Evaluation*, and is currently at the University of California at San Diego.

Clive Granger worked cooperatively over the years on various subjects with Robert F. Engle, the other recipient of this year's Prize in economics. Robert F. Engle was born in Syracuse, New York, and stayed to teach at New York University. He edited a collection of essays dedicated to his co-laureate, *Cointegration, Causality, and Forecasting*, in 1999.

Granger may be best known outside of the world of econometrics for "Granger Causality" – a theory which gained exposure because the proponents of global warming chose Granger Causality theory as a proxy to show that human activity is leading to global warming. Although the theory's veracity remains in dispute, it has become a virtually undisputed law of nature in climatology circles, because it can be shown to prove global warming.

The Nobel committee, however, chose to award the prize for his ground breaking work not in the controversial subject of causality, but in cointegration, for which he is renowned within the world of econometrics.

Continued on page 4

Grad School Profile

Granger's work on cointegration addresses the problem of non-stationarity, a property common to many time series, which means that a variable does not tend to return to a constant value or linear trend. It turns out that a number of aggregate time series, including gross national product, consumption, and asset prices, all share this property. For years, before Granger introduced the concept of cointegration, econometricians were at a loss when faced with studying non-stationary time series.

Similarly, Robert F. Engle developed a new concept to address time series where the volatility is not constant, but rather varies with time. Financial institutions make crucial decisions about valuation of various instruments (commodities, securities, derivatives, etc.) based to a large degree upon the perceived volatility of the price of a given financial instrument. Until the 1980s, these institutions were forced to assume that the volatility was constant, because they lacked the tools with which to explore time-varying volatility. Engle resolved this problem by introducing autoregressive conditional heteroskedasticity, for which he won the Nobel.

These developments which these two Nobel laureates developed over the course of their careers have been at the foundation of the development of modern econometrics since then, spawning a wealth of subsequent work from other econometricians around the world.

"Clive W.J. Granger, Winner of the 2003 Nobel Prize in Economics" [Online]. <http://almaz.com/nobel/economics/2003b.html>. Oct 2003.

Daly, John, L. "Granger Causality" [Online]. <http://www.vision.net.au/~daly/granger.htm>.

"Robert F. Engle, Winner of the 2003 Nobel Prize in Economics" [Online]. <http://almaz.com/nobel/economics/2003a.html>. Oct 2003.

"Time-Series Econometric: Cointegration and Autoregressive Conditional Heteroskedasticity" [Online]. <http://www.nobel.se/economics/laureates/2003/eoadv.pdf>. 8 Oct 2003.

—Sameer Parekh

Massachusetts Institute of Technology, MA

Ranking*:

- Economics Graduate (overall) – 1st
- International Economics – 3rd
 - Macroeconomics – 3rd
 - Microeconomics – 1st

* US News Rankings 2001

The Program:

- MIT offers a small Ph.D. program (4 years), enrolling approximately 25 out of 700 applicants each year. In total, the graduate program comprises 135 students and 39 faculty members.
- Program requirements:
 - a) core curriculum in economic theory, mathematics, econometrics, and economic history
 - b) four fields of specialization - 2 major, 2 minor
 - c) dissertation based on original research
- Application Deadline: January 15

Unique to MIT:

- Three Professors Emeritus are former Nobel Prize winners
 - Paul Samuelson, 1970
 - Franco Modigliani, 1985
 - Robert Solow, 1987

For More Information:

-<http://econ-www.mit.edu>

—Ke Ren

Class Review: Game Theory, continued from page 3

concepts in game theory. The class will also offer real-world examples, both economic and political. Professor Powell tries to scour the news for current events which can be analyzed using the concepts of game theory (what a great way to impress your friends!!!) Some newsworthy events he has used in the past include the US-Iraq standoff in Fall 2002 and the escalated Palestine-Israel conflicts in Fall 2001.

Conclusion: If you're more interested in applications than theory, take this class. Although there's already a waitlist for it, it's usually offered every Fall, so plan ahead!

—Tatyana Deryugina

Upcoming Seminars

Monday November 3

4-6 p.m., 608-7 Evans — “Quality Upgrading and Wage Inequality in the Mexican Manufacturing Sector”

Tuesday November 4

2-4 p.m., 608-7 Evans — “Are Two Heads Better than One? Team versus Individual Play in Signaling Games”

Friday November 7

12-2 p.m., 608-7 Evans — Research Survey Topic: International; Pierre-Oliver Gourinchas, Barry Eichengreen, Maurice Obstfeld, Chang-Tai Hsieh

Thursday November 13

2-4 p.m., 639 Evans — “The Cyclical Behavior of Equilibrium Unemployment and Vacancies”

4-6 p.m., C-325 Cheit — “Matching and Price Competition”

Friday November 14

12-2 p.m., 608-7 Evans — Research Survey Topic: Economic History; Bradford DeLong, Martha Olney, Christina Romer

For complete listing of seminars, see http://emlab.berkeley.edu/econ/courses_seminars.shtml

Jokes!

- I asked an economist for her phone number, and she gave me an estimate
- The cost of living hasn't affected its popularity
- Q: How many Wharton MBAs does it take to change a light bulb?

A: Only one, if you hire me. I can actually change the light bulb by myself. As you can see from my resume, I've had extensive experience changing light bulbs in my previous positions. I've also been named to the Wharton Light Bulb list, and am presently a teaching assistant for Light Bulb Management 666. My only weakness is that I'm compulsive about changing light bulbs in my spare time.

About the Undergraduate Economics Association (UEA)

We are a club for undergraduates at UC Berkeley who are Economics majors, considering enlisting in the major, or just interested in economics. We hope to build up interest and camaraderie among economics undergrads, and to provide resources that will help you get the most out of the department's offerings.

For more information about UEA and to find out about membership, visit <http://www.ocf.berkeley.edu/~uea>

This Month in Economic History

November

1851 – Charles Henry Dow, the founder of Dow Jones and the Wall Street Journal, was born.

1880 – James and John Ritty from Dayton, Ohio invented the cash register.

1933 – Civil Works Administration (CWA) is created to provide guaranteed temporary white and blue-collar jobs for those who would otherwise be unemployed. It was intended to alleviate the effects of the Depression and was disbanded in spring of 1934 after pumping about \$1 billion into the economy.

1945 – the Revenue Act of 1945 provided a tax cut of \$6 billion (which was a HUGE amount of money in those days!)

1946 – the Exchange National Bank in Chicago created the first ten drive-through teller windows.

(from HistoryChannel.com)

Econ vs. Business – November 18

You've heard stories about what separates business from econ. Do you wonder which you should choose? Come to this event and meet faculty members from the two departments, alumni, and students who double major in econ and business. Learn how the academic programs and possible career paths are similar and different. Don't let the difference between the two confuse you any more. Find out the real story behind econ and business at Cal.

Announcements

- Send in your letters! If you have an idea for an article, questions, real world observations, suggestions, or comments, don't hesitate to send an email to aa_committee@uclink.berkeley.edu.
- We are looking for someone with technical experience to assist with the format/layout of the newsletter. If you are interested, please email aa_committee@uclink.berkeley.edu