Northwestern University - Department of Economics

Graduate Connection

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News

Happy Holidays!

The faculty and staff extend their best wishes for a happy holiday season. The University will be officially closed on Tuesday December 24, Wednesday 25, Tuesday 31 and Wednesday January 1. The winter quarter commences on Monday, January 6.

Distinguished Teaching Assistants

The Distinguished Teaching Assistant Awards for 2012-13 were presented at the start-of-year buffet on October 13. The winners of a certificate, a limited edition coffee mug, and a year's subscription to *Econometrica* were **Yana Gallen**, **Bridget Hoffman**, **Alexander James**, **Christian Lund**, **Sangyoon Park**, **Assaf Patir**, **Ricardo Pique Cebrecos**, **Ariell Zimran** (all reawards), **John Farragut**, **Sebastian Kohls**, **Andreas Kropf**, **Teddy Mekonnen**, **Juan Prada Sarmiento**, **Christopher Romeo**, **Yi Sun**, and **Thiago Teixeira Ferreira**. These awards are given to the top third of our Teaching Assistants, based on student and faculty evaluations. These awards have been listed prominently on the vita of our students on the job market, and act as a strong signal to potential employers of your teaching capabilities. This is especially true for students from countries where English is not the first language.

Robert Eisner Memorial Fellowship

Also, at the start of year buffet, a fellowship in honor of our late colleague Robert Eisner was presented. For 2013-14 the Fellowship was awarded to **Laura Duval**. This fellowship is awarded annually to a graduate student who has distinguished him- or herself in *both* teaching and research.

Susan Bies Research Prizes

Also at the Buffet, the Department presented the annual Susan Schmidt Bies Prizes for Doctoral Student Research on Economics and Public Policy. The awards are given to the best public policy papers presented as part of the Economics 501 seminar. The winners for 2012-13 were **Arlene Chu** for a paper on how households lower the prices that they pay at grocery stores during downturns by increasing their coupon usage, sale purchasing, buying larger sizes and buying generic products; and **Yana Gallen** for a paper on how workers anticipate unemployment by saving more than workers in the same firm who ultimately keep their jobs during a mass layoff. The prizes were generously donated by alumna Susan Schmidt Bies (PhD, 1972). Her professional career included serving on the Board of Governors of the Federal Reserve System.

Visitors

The Center for Study of Industrial Organization will be hosting **Gautam Gowrisankaran** of the University of Arizona for the Winter and Spring Quarters.

Congratulations

The Associated Student Government's Faculty Honor Roll for 2012-13 included **Jim Hornsten**, **Eric Schulz**, **Mark Witte** and **Richard Walker** for their work in the classroom, and **Ronald Braeutigam** in his administrative role.

Congratulations to **Aviv Nevo** who has been elected as a Fellow of the Econometric Society. The Department now has 16 faculty members elected as Fellows of the Econometric Society, with a further five Fellows among the economists in the Kellogg School of Management.

Leon N. Moses 1924-2013

The Department is sad to announce the passing of Emeritus Professor **Leon Moses** on October 12. Professor Moses was a faculty member at Northwestern from 1959 to his retirement in 2005. He is remembered for the high standard of his teaching particularly in the undergraduate intermediate microeconomics course. He was also well known for his research in transportation and urban economics and regional science.

Northwestern advances to National Finals of the College Federal Reserve Challenge

On November 25, a team of Northwestern undergraduates won the regional contest against 13 other universities to advance to the national finals of the College Federal Reserve Challenge. The competition involved two rounds, where each the team had to present a discussion of about the state of the economy and proposing Federal Reserve responses to it, and then taking questions from a panel of Federal Reserve economists. Northwestern's team will travel to compete for the national championship at the Federal Reserve Board of Governors in Washington, DC on December 2nd, 2013. The team consists of **Nikhil Byanna**, **Yuxuan Chen**, **Jonathan Cohen**, **Kyle Isaacson** and **Ranjodh Singh**, and is advised by Professor **Mark Witte**.

Events

AEA Annual Meeting

The annual meetings of the American Economics Association will be held in Philadelphia on Friday to Sunday, January 3-5. If you are at the conference, stop by the NU annual cocktail party in the "Congress C" room of the Loews Philadelphia Hotel, 1200 Market Street, from 6-8pm on the Saturday.

Martin L. King Jr. Day

On Monday, January 20, the University is closed and all classes are canceled in observance of Dr. Martin Luther King Jr. Day.

Memorial Service for Leon N. Moses

A memorial service for Leon Moses, who passed away in October (see News section) will be held on Friday February 7 at noon in the Jeanne Vail Chapel (corner of Chicago Avenue and Sheridan Road), with a lunch reception afterwards in the Guild Lounge in Scott Hall.

Mark Your Calendars

Mark your calendars for these special events in the Spring Quarter. Full details will be given in the March *Graduate Connection*.

April 4 (Friday): Prospective graduate student visit day
April 29 (Tuesday) at 4pm: Personal chair investitures for Professors Eichenbaum and Tamer
May 16-17 (Friday-Saturday): Joint Northwestern - University of Toulouse industrial organization conference
May 21 (Wednesday) at 5:45pm: Nancy L. Schwartz Memorial Lecture featuring Colin Camerer of the California Institute of Technology

Teaching

Seminar Registrations

The Department has updated the 500-level seminar offerings. One implication is that we will not be offering Econ 501 and the 500-level workshop classes in the Winter Quarter when these classes usually do not meet. They will return in the Spring Quarter. Students who need to register for additional credits to maintain full-time status should use Econ 590 (for second year students) and TGS 500 (for older students).

This Quarter's Course Descriptions

The Department has a policy to avoid the problem of excessive awarding of incomplete grades. Please see our web site for a complete statement. Report any problems to the Director of Graduate Studies.

Economics 412-1
Economy Theory and Methods
Professor Strulovici
MW 1:00-2:50   Jacobs 3245

This course covers optimal control and stopping theories, as well as their applications to economic problems. The course starts with an introduction to stochastic processes, stochastic calculus, and stochastic control, with a focus on continuous time, including topics such as the smooth pasting condition, the Hamilton-Jacobi-Bellman equation, and the Martingale Representation Theorem. The techniques are then applied to models such as optimal portfolio choice, optimal entry/exit decisions, and dynamic principal-agent models. Students will also see how to establish comparative statics results in dynamic models, such as monotonicity of the value function and of the optimal stopping time or optimal control, as well as other properties of the value function (convexity, homogeneity). The course also covers models of optimal learning and experimentation, including a study of the multi-armed bandit problem in discrete time.

Evaluation is by problem sets, a paper presentation, and the submission of a research project or review paper.

Economics 414-2
Economics of Information
Professor Siegel
MW 5:00-6:50   Jacobs 3245

The course introduces several conceptual and technical approaches commonly used in microeconomic theory. Topics include: private- and common-value auctions, single- and multi-agent mechanism design, equilibrium existence in discontinuous games, and complete- and incomplete-information contests and wars of attrition. The emphasis is on developing economic intuition and an understanding of the mathematical underpinnings of the models.

Evaluation will be based on problem sets, participation, and a final exam. There is no textbook for the course; detailed slides and some lecture notes will be provided.

Economics 416-2
Advanced Macroeconomics
Professor Berger
TTh 11:00-12:50   Jacobs 3245

This is a course on empirical macroeconomics. The first goal of the class is to introduce students to models of both household and firm heterogeneity to try and understand under what conditions heterogeneity at the micro level matters for aggregate dynamics. The course focuses on models that consider the aggregation of infrequent and lumpy microeconomic behavior, with applications to the aggregate dynamics of inflation, investment, employment and consumer durables. The second goal of this class is to introduce students to a variety of empirical approaches (reduced form and structural) and data sources that have been used recently to discipline structural models and to address important macroeconomic and policy questions.

Economics 420-2
European Economic History
Professor Mokyr
TTh 9:00-10:50   Jacobs 3204

In the past decade, a great deal of economic history has been written by scholars (some full time economic historians, others part timers and interlopers) who are applying economic theory and econometric methods to historical issues and producing new and innovative databases, raising new issues or answering old ones with new methods. The purpose of this course is to survey some of this recent literature and stimulate similar research. Each student will be in charge of class presentations (starting in week 2) of a subset of the assigned papers.

Evaluation will be based on the class presentation and participation, and a research paper that is due one year after the course ends.

Economics 436-1
Theory and Practice of Public Finance
Professor Lockwood
MW 1:30-3:20   Jacobs 3204

This stand-alone course covers the core theoretical results and empirical techniques used in public finance. The emphasis is on combining theoretical models and empirical evidence. Topics include the incidence and efficiency of government taxation and expenditure programs, optimal taxation, taxation and saving, and social insurance programs including Social Security, Medicare, and Medicaid. The main goal of the course is to prepare students to contribute to the literature on public finance or related fields.

Evaluation is by problem sets, short writing assignments, and a final exam. There is no single main text, though selected readings from the *Handbook of Public Economics* comprise an important component of the course. This course may be combined with courses from related fields to satisfy a field requirement (please see the course instructor or the Director of Graduate Studies for details).

Economics 440-1
Economics of the Labor Market
Professor Mortensen

The start of this course has been postponed. It is possible that it may commence later in the Winter Quarter. If that is the case, an announcement will be circulated. Formal registration, credit and grades will occur in the Spring Quarter.

Economics 450-2
Industrial Organization and Prices
Professor Porter
MW 11:00-12:50   Jacobs 3245

An introduction to several topics in industrial organization theory and empirical analysis. Topics include: oligopoly pricing; production, costs and technology; differentiated products; entry, growth and turnover; advertising; cartels and collusion; and auction markets. The emphasis will be on the estimation and testing of game theoretic models, and especially on recent developments in the field.

Evaluation will be by several problem sets and a final exam.

Economics 460-2
International Economics
Professors Eichenbaum and Lorenzoni
TTh 1:30-3:20   Jacobs 3204

The class covers topics in international finance and open economy macroeconomics, including: the determinants of the trade balance and of capital flows across countries; how goods are priced in international markets; how asset prices and exchange rates are determined when the capital account is open; the role of monetary and fiscal policy in an open economy under different exchange rate regimes; capital flights, currency crises and sovereign debt crises; the role of international banking in the transmission of shocks across borders.

Economics 481-2
Econometrics
Professor Tamer
MW 3:30-5:20   Jacobs 3204

The course starts with a preview of semi parametric methods. These include: binary response models, censored models, and general index models. The focus will be on the required inference tools. Then, the course will turn to the problem of inference in discrete games, including: simple complete information games, some games with incomplete information, network games, and linear in means games. The discussion will be directed towards general approaches to inference. New and open research questions are emphasized. Evaluation is based on class participation and a final class presentation.

MECS 460-2
Foundations of Management Economics
Professor Hu
M 2-5   Jacobs 586

The goal of this course is to introduce students to dynamic optimization techniques for both discrete and continuous time stochastic problems. In particular, the course will present results in discrete time dynamic programming and continuous time optimal control.

MECS 468-2
Selected Topics in Economic Theory
Professor Schummer
Th 2-5   Jacobs 586

This course covers the central results of matching theory along with recent applications. The course begins with an overview of classic matching models including the college admissions, house market, and assignment models. It then examines extensions of these models, some of which have use in market design applications. There may be some room for flexibility in topics toward the end of the course.

Evaluation will be by presentation of papers and/or book chapters in class. In addition, students will either write an original research paper, or write five serious referee reports for recent, unpublished papers in the field.

Initial readings will be from *Two-Sided Matching: A Study in Game-Theoretic Modeling and Analysis* by Alvin E. Roth and Marilda A. Oliveira Sotomayor (Cambridge U.P., 1992).

Finance 487
Dynamic Asset Pricing Theory
Professor Skiadas
F 9:30-12:30   Jacobs 4214

This course offers an in-depth introduction to competitive asset pricing theory in dynamic settings. The main topics are dynamic trading, the arbitrage pricing of derivative securities, foundations of dynamic choice, consumption-based asset pricing and optimal consumption/portfolio choice using recursive utility. Both discrete-time models and continuous-time methodology are covered. The necessary mathematical tools are introduced, including some martingale theory, the Ito calculus, and the theory of backward SDEs.

Texts are: Costis Skiadas *Asset Pricing Theory* (Princeton Univ. Press, 2009) and Darrell Duffie *Dynamic Asset Pricing Theory* (Princeton Univ. Press, 2001).

There will be weekly assignments. Some of the questions assigned will be labeled as exam questions. Grading will be based 70% on homework and 30% on exam questions.

Finance 488
Econometrics of Financial Markets
Professor Jagannathan
M 9-12:30   Jacobs 4214

This course will cover topics in the empirical capital markets literature and related econometric methods. The topics will include stock return predictability; asset pricing models; asset price bubbles; liquidity and systemic risk; portfolio

performance evaluation; factor models in large cross sections; and hidden Markov models. The econometric methods will include GMM and maximum likelihood.

Course grade will be based on homeworks, class presentation of recent academic papers, and a final exam.

Finance 489
Empirical Corporate Finance
Professor Sapienza
Th 2-5   Jacobs 4214

The course discusses empirical papers that are related to the theories formulated in the corporate finance theory class, but also helps students to develop identification strategies for testing corporate finance hypothesis. The course is organized around published and working papers in the field with an emphasis on the identification problem and solutions. Rather than providing an exhaustive overview of the field, the course focuses in depth on selected topics to illustrate different empirical approaches to the same or related questions. Part of the course will be devoted to teaching how to use the basic databases in Finance (Computstat, CRSP, WRDS databases), including an introduction to UNIX and SAS. Stata knowledge is assumed. Empirical exercises to learn to extract and manipulate those data will be given to the students. At the end of the course, the students will master how to use the most common databases in finance.

Finance 486 is a prerequisite. Grades will be based largely on referee reports, discussion of papers, and homework (90% of the total grade). The remaining 10% of the grade will be based on class participation.

Formal Announcements

Funding Guidelines

The Department has formal rules for the allocation of funding for students in years

two through six. This document is posted on our web site. Please read this document as *the Department strictly enforces these funding criteria.*

Preliminary Examinations – Class of 2013

First year students should familiarize themselves with the Department's rules on continuation to the second year. These are posted on our web site.

Dates for the prelim examinations for the coming year have been set. The ordering of the three examinations rotates each year.

July 2014 Sitting
Mon July 14   Macroeconomics
Fri July 18   Econometrics
Wed July 23   Microeconomics
All examinations will be held 1PM - 4PM.

Students in the entering class of 2013 should note that they are exempt from the prelim exam in any area in which they achieved a GPA of 3.60 or greater in the three first-year classes (e.g. in 410-1,2,3 for the microeconomics prelim exam).

Preliminary Examinations – Class of 2012

The Department has rules on the number of times that students are allowed to take prelim examinations, and the conditions for such retaking. These affect whether some second year students will be allowed to continue into their third year. The rules are posted on our web site. Please make sure that you are familiar with them.

Dates for the coming year are:

Spring 2014 Sitting
Mon July 14   Macroeconomics
Fri July 18   Econometrics
Wed July 23   Microeconomics
All examinations will be held 1PM - 4PM

Fall 2014 Sitting
Because a fourth sitting is only possible if a student has already passed two

examinations, students can take their remaining examination on one date, Wednesday September 3 from 1PM - 4PM. This date is *after* Labor Day.

TA Periods in Residence

Each quarter that you are a TA, you are expected to be in Evanston on weekdays from the first day of classes until the Monday after examinations end (which is the day that grades are filed). Absences during this period require permission of the instructor. In the past people have left early and arrived back late, in some cases without informing the instructor. The Department will not tolerate this. You must arrange your vacation airline flights so as to be able to fulfill your duties. This is especially true as you make travel arrangements for the coming holiday season. Failure to do so will be grounds for rescinding your TAship. For the coming year the dates for which you should be in attendance are:
Fall: until Mon Dec 16
Winter: Mon Jan 6 - Mon March 24
Spring: Mon March 31 - Mon June 16

Graduate School Deadlines

February 7 is the last day for return of the Application for a Degree for all candidates who expect their degrees to be awarded in March.
February 28 is the last day for submission of the COMPLETED dissertation and all supporting materials to the Graduate School for students who expect to receive the Ph.D. degree in March.
March 7 is the last day for receipt of the Final Examination Report and any Change of Grade forms to the Graduate School for Master's candidates who expect their degrees to be awarded in March.

Students Working on NSF Grants

Under new federal legislation, the National Science Foundation (NSF) has started requiring all students supported by NSF to undergo training in the responsible

conduct of research. This will be accomplished by a one-time registration in ECON 519 that has two components: an online class and a "face-to-face" component. The online part asks the student to complete a 2-3 hour online class administered by a private company that Northwestern has hired. DGS Professor **Wojciech Olszewski** will lead the face-to-face part of the class.

If you are being supported on an NSF grants for the first time, please contact Professor Olszewski for instructions.

Funding Opportunities

Teaching Opportunities 2014-15

Application forms for teaching as an instructor in the evening program (School of Continuing Studies) and in the regular WCAS day school will be circulated on February 3. Students will be appointed on the basis of excellent performance as a lecturer or as a TA.

NU Dissertation Year Fellowships

The Department has taken the pedagogical decision that Dissertation Year University Fellowships (DYUF) should be taken in the spring quarter of the year prior to going on the job market, and the fall and winter quarters of the job market year. To qualify for the spring quarter fellowship, students should ask their advisor to file the *Spring Certification of Intent to Enter the Job Market* (Form GS5) with the Graduate Secretary between February 3 and February 17 (the normal deadline is the 15th but that falls on a Saturday). This form is available from the Graduate.>Current Students section of our web site.

NU Summer Fellowships

Summer Fellowships will again be available to students in years two through four (first year students will have been notified about summer funding in their offer letter). A signed acceptance form and

contract will have to be submitted. This will occur in May. More details will be given in the next *Graduate Connection*.

Fifth year (and above) students should note that The Graduate School specifies that Summer University Fellowships are not available for students beyond year 4.

Funding for Research-Related Travel and Expenses

The Graduate School has available funds to pay for research expenses and for travel to conferences. The maximum one-time research grant is $3,000, and there is funding for one conference a year that covers up to a maximum of $700. Full details of the application procedures and links to application forms are on the funding web page.

Federal Aid Forms

If you are a U.S. citizen or a U.S. permanent resident you need to renew your FAFSA (Free Application for Federal Student Aid) application. You can complete the forms on-line at www.fafsa.ed.gov after January 1 and before June 30. The Graduate School recommends that you file by March 1. It is often useful to have completed and filed your 2013 income tax form (1040) before you complete the FAFSA.

Notes

Next Graduate Connection

Volume 19, number 3 will be published in the week of March 3.