

# Graduate Connection

News.....	1
Events.....	2
Teaching.....	2
Formal Announcements .....	4
Funding Opportunities.....	5
Notes.....	5

## News

### *Happy Holidays!*

The faculty and staff extend their best wishes for a happy holiday season. The University will be officially closed on Wednesday December 24, Thursday 25, Wednesday 31 and Thursday January 1. In addition the Department's staff offices will be closed on Friday December 26. The winter quarter commences on Monday, January 5.

### *Distinguished Teaching Assistants*

The Distinguished Teaching Assistant Awards for 2013-14 were presented at the start-of-year buffet on October 12. The winners of a certificate, a limited edition coffee mug, and a year's subscription to *Econometrica* were **Aanchal Jain, Alexander James, Sebastian Kohls, Andreas Kropf, Christopher Lau, Esteban Petruzzello, Christopher Romeo, Shruti Sinha, Yi Sun.** (all reawards), **Titan Alon, Daniel Fershtman, Ruben Gaetani, and Natalya Naumenko.** 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 2014-15 the Fellowship was awarded to **Sebastian**

**Kohls.** 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 2013-14 were **Stephanie Chapman** for a paper on whether differences in minimum work age laws between states in the early 1900s affected peoples' income later in life, and **Germán Bet** for a paper on the role institutions play in whether countries can grow their economies after external exogenous shocks. 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.

### *Congratulations*

The Associated Student Government's Faculty Honor Roll for 2013-14 included **Jim Hornsten, Richard Walker, and Mark Witte** for their work in the classroom, and **Ronald Braeutigam** in his administrative role.

### *Nemmers Prize*

**Jean Tirole** of the Toulouse School of Economics and winner of the 2014 Nemmers Prize in Economics will be visiting Northwestern in the spring quarter of 2015 during the 4 week period from Tuesday April 7 through Friday May 1. Of

---

Published 3 times a year in  
September, December and  
March by:

Department of Economics  
Northwestern University  
2001 Sheridan Road  
Evanston, IL 60208-2600  
[www.econ.northwestern.edu](http://www.econ.northwestern.edu)

Ian Savage, *editor*  
847-491-8241

[ipsavage@northwestern.edu](mailto:ipsavage@northwestern.edu)

course, he was also the winner of the 2014 Nobel Prize in Economics.

He will present his Nemmers Prize Lecture in the late afternoon of Wednesday April 29 at the Allen Center. The Nemmers Conference on the topic of "Liquidity, Bubbles and Crises" will then take place on Thursday and Friday April 30-May 1. Alessandro Pavan, Kathleen Hagerty, Guido Lorenzoni and Bruno Strulovici, assisted by Ian Savage, are in charge of organizing the Nemmers conference. Full details will be provided in the March *Graduate Connection*.

Professor Tirole will return for another four-week visit during the 2015-16 academic year. The Nemmers Prize is a biennial honor bestowed on an outstanding economist who has yet – at the time the award is bestowed - to win the Nobel Prize.

## Events

### *AEA Annual Meeting*

The annual meetings of the American Economics Association will be held in Boston on Saturday to Monday, January 3-5. If you are at the conference, stop by the NU annual cocktail party in the Suffolk room of the Boston Marriott Copley, 110 Huntington Avenue, from 6-8pm on the Sunday.

### *Martin L. King Jr. Day*

On Monday, January 19, the University is closed and all classes are canceled in observance of Dr. Martin Luther King Jr. Day.

### *Mark Your Calendars*

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

March 20-22 (Friday – Sunday): Conference on decentralization in honor of the late Stanley Reiter at the Allen Center.

April 3 (Friday): Prospective graduate student visit day.

April 29 (Wednesday) at 4:30pm: Nemmers Prize lecture by Jean Tirole at the Allen Center.

April 30 – May 1 (Thursday & Friday): Nemmers Conference "Liquidity, Bubbles and Crises" at the Allen Center.

May 13 (Wednesday) at 4:30pm: Bies Lecture by Carl Shapiro of the University of California, Berkeley in Jacobs G40.

May 20 (Wednesday) at 5:45pm: Nancy L. Schwartz Memorial Lecture featuring Kellogg's Ehud Kalai.

## Teaching

### *Seminar Registrations*

The Department 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 414-2**

Economics of Information

Professor Siegel

TTh 5:30-7:20pm

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 with a focus on using micro data and models with microeconomic heterogeneity to understand macro phenomenon. Recent increases in computational power and the availability of "big data" have been transformational in empirical macroeconomics and finance. The use of micro data provides additional discipline on macroeconomic models and often leads to insights or conclusions that differ from analysis using aggregate data alone. This course will build the empirical toolkit and computational skills necessary to bring micro data to heterogeneous agent macro models. The first half of the course will focus mainly on topics related to households while the second half will focus mainly on topics related to firm behavior. Some particular applications include risk sharing and insurance, the role of household and firm debt in explaining macroeconomic outcomes (with a focus on the Great Recession), the effects of economic stimulus, the role of transaction costs and lumpy adjustment, the aggregate implications of volatility/uncertainty and understanding the aggregate dynamics of consumer durables, inflation and investment.

**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 425-2**

Theory of Economic Development

Professor Beaman

MW 9:00-10:50

Jacobs 3204

This course focuses on the application of theory and applied econometrics to provide students with a solid background to do applied microeconomic research. Applications will relate to empirical microeconomic issues in developing countries. The course will cover topics including: health, education, agriculture, social interactions, experimental economics, and empirical political economy.

Evaluation will be based on referee reports, in-class presentations, and a research proposal.

**Economics 440-1**

Economics of the Labor Market

Professor Notowidigdo

MW 1:00-2:50

Jacobs 3245

This course studies topics in labor economics, surveying both theoretical and

empirical work in the field. The topics will be focused around the core areas of labor supply, labor demand, and human capital. The theoretical models will include signaling, skill premia, self-selection, and statistical discrimination. The empirical work will focus on recent papers studying human capital, inequality, technological change, trade/offshoring, immigration, gender/racial wage gaps, and unions.

Evaluation is by several problem sets and a final exam. The problem sets will be statistical programming exercises. Readings are primarily academic papers and lecture notes, with an optional textbook *Labor Economics* by Cahuc and Zylberberg (MIT Press, 2004).

**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. In addition, Professor Nevo will lecture on the estimation of demand for differentiated products and on estimating production functions.

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 macro. Topics include the determinants of cross-border financial flows, current account balances, and exchange rate both from an asset pricing perspective and in terms of its

effects on competitiveness and the trade balance. The course will also consider the behavior of goods prices across borders and discuss the merits of different monetary arrangements (flexible vs fixed exchange rates, currency unions).

Evaluation will be based on problem sets and a final paper.

**Economics 481-2**

Econometrics

Professor Canay

MW 3:00-4:50

Jacobs 3204

The course aims to cover modern econometrics topics from a theoretical point of view but with lessons for practitioners. It is divided in three parts. The first part is about different ways to do asymptotic approximations, with special attention to approximations of power curves. Topics include local asymptotic comparisons, large deviations, contiguity, and local asymptotic normality. The idea of the first part is to understand that a given finite sample object may be approximated in different ways, and not all ways are equally appropriate. The second part is in the same spirit of the first part and covers uniformly valid approximations, with applications to the bootstrap and subsampling in non-regular models. The last part is completely independent of the first two and is about computing standard errors in linear models. It includes robust standard errors, different types of HAC estimators, clustered covariance estimation, the wild bootstrap, and recent developments on randomization tests.

Evaluation is by problem sets, weekly reports and a topic presentation. The books *Asymptotic Statistics* by van der Vaart (Cambridge U.P., 2000) and *Testing Statistical Hypothesis* by Lehmann and Romano (3<sup>rd</sup> edition, Springer, 2008) include many of the topics of parts I and II. Selected readings are provided for the last topic.

**Economics 482**

Time-Series Methods

Professor Primiceri

MW 5:30-7:20pm

Jacobs 3245

This course is an introduction to modern time series analysis. The emphasis is on Bayesian methods to conduct inference in dynamic macro-econometric models. Topics include univariate and multivariate autoregression (AR and VAR) models, structural VARs, state-space models, time varying parameters and stochastic volatility models, estimation of linear and nonlinear dynamic stochastic general equilibrium (DSGE) models, model comparison and model choice.

Evaluation will be based on problem sets and a take home final exam.

**MECS 460-2**

Foundations of Management Economics

Professor Hu

F 2-5

Jacobs 586

This course provides mathematical tools necessary for both macroeconomic models and dynamic models in microeconomics and game theory. While the main focus is on techniques for dynamic programming, the course will go through several applications including monetary theory, strategic experimentation, and dynamic contracting. This course is especially designed for students who are interested in tackling macroeconomic issues using tools in game theory and microeconomics.

**MECS 465-1**

Contract Theory and Mechanism Design

Professor Sandroni

F 12:00-2:50

Jacobs 561

This course relies on student presentations of papers and informal discussions of ideas. The main objective is to find good dissertation projects and, hence, facilitate the transition from student to researcher. There are no exams. The topics depend on students' interest, but some suggestions include: the structure of

political parties, diplomacy, stochastic games, networks and communications, belief elicitation, and the theory of mind.

**MECS 468-2**

Selected Topics in Economic Theory

Professor Schummer

Th 1:30-4:20

Jacobs 586

This course covers the foundations of matching theory and recent applications. It begins with an overview of classic models (college admissions, house market, and assignment models). It then examines extensions of these models, some of which have use in market design applications. Besides learning about matching models, there is an emphasis on improving presentation skills.

Evaluation is on the basis of a written research paper (or referee reports) and 2-3 presentations.

**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 U.P., 2009) and Darrell Duffie *Dynamic Asset Pricing Theory* (Princeton U.P., 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

T 1:30-5:20

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 weekly homework assignments and a final exam.

**Short Course**

Bandit Models

Professor Arlotto (Duke University)

January 12-17.

Look for further information on times, location and syllabus on the website of Center for Mathematical Studies in Economics and Management Science.

**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*

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.

Monday July 13 - Econometrics  
 Friday July 17 - Microeconomics  
 Wednesday July 22 – Macroeconomics  
 All examinations will be held 1PM - 4PM.

Students 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).

### *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 15  
 Winter: Mon Jan 5 - Mon March 23  
 Spring: Mon March 30 - Mon June 15

### *Graduate School Deadlines*

**February 6** 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 27** 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 6** 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*

The National Science Foundation (NSF) requires all students supported by them 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 2015-16*

Application forms for teaching as an instructor in the evening program (School of Professional Studies) and in the regular WCAS day school will be circulated at the end of January. 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 2 and February 16 (the normal deadline is the 15<sup>th</sup> but that falls on a Sunday). 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 two conferences during your time at Northwestern that covers up to a maximum of \$800 for each conference. 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](http://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 2014 income tax form (1040) before you complete the FAFSA.

## Notes

### *Next Graduate Connection*

Volume 20, number 3 will be published in the week of March 2.