# Northwestern University - Department of Economics Graduate Connection

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Graduate Connection Department of Economics/NU

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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 Friday December 23, Monday 26, Friday 30 and Monday January 2. The winter quarter commences on **Tuesday**, January 3.

# Distinguished Teaching Assistants

The Distinguished Teaching Assistant Awards for 2004-05 were presented at the start-of-year buffet on October 10. The winners of a certificate and a year's subscription to Econometrica were Ambarish Chandra, Kripa Freitas, Jonathan Huntley, Dan Liu, Sorin Maruster (all re-awards), Jakub Kastl, Piotr Kuszewski, Tim Lin, Luigi Paciello, Thor Sletten, and Tomasz Strzalecki. Congratulations to the winners. These awards are given to the top third of our TAs, 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 to **Tomasz Strzalecki**. This fellowship is awarded annually to a graduate student who has distinguished him- or herself in *both* teaching and research.

## Maryann Semer

Maryann Semer will be retiring as of December 31. This will occur at the same time as the transfer of the Econometric Society administrative offices to New York University. Maryann has worked at Northwestern for 21 years, including almost 15 years in the Economics Department. For the past decade and a half, Maryann has been in charge of the placement process, assembling our packet of vitae of students on the market, and coordinating the addition of recommendation letters to the student's personal packets of papers and vita. By our estimates she has assisted about 220 Economics PhDs in their job search. I am sure that all of you join the faculty and staff in wishing Maryann a happy retirement.

## Other Staff Changes

**James Burns** joined the staff in October. He has taken over many of the duties previously performed by Terri Parrish. In addition he has been working with Maryann Semer this quarter with the objective of taking over responsibility for graduate student placement in 2006-07.

## Visitors

We will be welcoming **Liran Einav** from Stanford University as a visitor to the Center for the Study of Industrial Organization from the middle of February to the end of March.

We will also be hosting **Torsten Persson** of the Institute for International Economic Studies in Stockholm as part of our international trade and development visiting speaker series. For more details on this see under the teaching section.

### *Congratulations*

Congratulations to Professor **Dale Mortensen** and Chris Pissarides on their jointly receiving the Institute for the Study of Labor (IZA) Prize in Labor Economics for 2005. IZA is based is Bonn, Germany.

Congratulations to a team of our undergraduates on winning the College Federal Reserve Bank Challenge for the second year in a row. Our team of Aditya Damani, Derek Moeller, Kevin Rodrigues, Jeanne Ruan, and Reed Van Gorden beat out sixty others schools to advance to the final in Washington DC where they went before Chairman Alan Greenspan and a panel of judges chosen from Federal Reserve economists to do a presentation about what the Fed's monetary policy should be given the state of the economy, and then answer questions about the Federal Reserve, the state of the economy, and macroeconomic theory.

## Program Review

Every 10 years, the Department is evaluated by the University as part of Northwestern's Program Review process. Scholars from inside the University and a group of economists from outside NU will be on campus in the Winter and Spring Quarters, interviewing faculty, students, and staff. The information they gather is included in a report to the University which is then used as the basis for improvements to the Department.

The University and the Department take this process VERY seriously, as it is an effective way to identify areas of both achievement and concern. Your input into this process will have a genuine impact on the way the Department operates over the coming decade.

Before they arrive, the reviewers want us to provide feedback from our students on the things we do well and the things we do not do so well, so they can more productively use their time when they interact with us. They are particularly interested in

1. The adequacy of funding: fellowship aid, TAs, RAs, other

- 2. How your experiences at NU compare to those of your friends at other economics departments (particularly the impact of funding on people's decisions where to enroll)
- 3. The effectiveness of advising, the 1st year core courses, the field courses, and the Econ 501seminar system
- 4. The adequacy of the resources available to help you conduct your research (library, computing, money for travel to conferences, access to faculty advisors)
- 5. The adequacy of the PhD placement process
- 6. Whether your expectations regarding the program when you decided to come here have been met (be specific)
- 7. ANYTHING else you would like to tell us and the internal and external reviewers about economics at Northwestern, even if it is unrelated to the six items listed above. Remember: this is your best chance to provide feedback that will be seen by the reviewers, the University, and the Department. Your input will have a substantial impact on how the Department is evaluated.

To allow you to comment anonymously on the program, we have set up a Gmail account at http://www.gmail.com. Use the box at the right to sign in using:

[Username and Password deleted in this edition - see hard copy or e-mail]

Please note that these are case-sensitive. After you are logged in, use the "Compose Mail" button at the upper left to write your email. To make the process as anonymous as possible, we have set up only one account, so if you get a message saying you cannot log in because the account is in use, please wait a few minutes. When you are finished, please click "Sign Out" in the upper right so another student can access the account.

Address your email to "econphd@northwestern.edu" and use "Program Review" in the subject line. It would be helpful if in the first sentence of your comments you identify yourself as a first year, second year, ..., up to "student currently on job market." This will give better context to your comments while still preserving your anonymity. No one will be able to trace back the sender of the message, so the confidentiality of your comments is assured. It would be best if you could provide your feedback by the middle of December.

## Departmental Rankings

The November/December issue of Science Watch has published a study of the number of citations to articles in economics and business between 1995 and April 2005 that appear in 200 journals. In terms of the absolute of citations, Northwestern ranked eighth behind the NBER. Harvard. the University of Pennsylvania, Chicago, MIT, Stanford and Berkeley. When adjusted for the "impact" of each article by dividing citations by the number of articles cited, NU ranked tenth with 10.3 citations per paper. The University of Chicago had the highest number of citations per paper at 13.98. In interpreting these data, one should note that the data are heavily skewed by heavily-cited articles by business professors in finance and organizational behavior.

## **Events**

## Martin L. King, Jr. Day

On Monday, January 16, classes are canceled from 11AM to 2PM in observance of Dr. Martin Luther King Jr. Day. The MW 11-1 classes (416-2, 480-2) will be canceled on this day, and the MW 1-3 class (450-2) will either start at 2PM or be rescheduled. This will also affect the Monday TA sections for Economics 310-2 and 311. Departmental offices will be closed, or have limited staffing during these hours. Please join the Universitywide observances to celebrate the life and legacy of Dr. King.

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# Teaching

## 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.

The first day of classes for winter quarter is Tuesday, January 3. This year, the start of the winter quarter does not overlap with the American Economic Association annual meetings which are in Boston from January 6 to 8.

#### **Economics 412-2**

Economic Theory and Methods Professor Olszewski TTh 1-3\* AAH 3245

AAH 3245

This course is an introduction to the tools, techniques, and concepts of game theory. Topics include: repeated games; bargaining; reputation; communication in games; herd behavior and cascades, common knowledge and games. The emphasis will be on recent advances and potential research in repeated games and communication in games.

Evaluation based on several problem sets and a final exam. There will be selected journal readings, plus the textbook *Game Theory*, by Drew Fudenberg and Jean Tirole (MIT Press).

\* Prof. Olszewski will consider rescheduling this class to remove a time conflict with Econ 420-2 subject to the schedule of the students. If you are interested in this class, please contact Prof. Olszewski with a indication of your time constraints.

| Economics 414-1          |          |
|--------------------------|----------|
| Economics of Information |          |
| Professor Wolinsky       |          |
| MW 9-11                  | AAH 3245 |

The course will survey central topics in the economics of information. The main topics are search, formal descriptions of information and knowledge in single and multiple agent situations, the principalagent problem with adverse selection, games of incomplete information, implementation/mechanism design and reputation. The course will present both more abstract models and ideas and more applied models dealing with economic problems such as price discrimination, auctions, bargaining and signaling

#### Economics 416-2

Advanced Macroeconomics Professor Nagypál MW 11-1 AAH 3245

The aim of this advanced course is to give you an in-depth knowledge of what is probably the most vibrant area of macroeconomics: the macroeconomics of labor markets. We will pay particular attention to how macroeconomists' understanding of business-cycle fluctuations in labor-market aggregates has evolved over the last two decades. We will shortly review the relevant stylized facts and thoroughly study the models and techniques used in this area of macroeconomics.

It is also the aim of this course to teach you along the way the numerical tools necessary to solve state-of-the art macroeconomic models. Problems sets will require substantial use of Matlab, prior familiarity with which is very useful, though not required. Evaluation will be based on these problem sets and a computational take-home final exam.

#### Economics 420-2

European Economic History Professor Mokyr TTh 2-4 AAH 3204

This course will be devoted to problems in the economic history of Europe in the Twentieth Century, roughly defined as 1890-1989. The course will deal with a variety of topics, about a topic a week. The readings will be distributed on a CD ROM. Requirements are: an exam covering materials in topics 1-8 and a final paper due by the end of December 2006.

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Topics include: (1) technology and long-term growth 1890-1989; (2) population and demographic change; (3) the causes and effects of the great wars; (4) rise and fall and rise of European economic integration; (5) depressions and booms; (6) the welfare state and the rise of the mixed economy; (7) industrial organization, capitalism and enterprise in the West; (8) the collectivist experiments; (9) fascism and totalitarianism in an economic perspective; and (10) labor, work and the rise of the leisure society

#### **Economics 425-1**

Theory of Economic Development Professor Chung TTh 9-11 AAH 3245

This is the first quarter in the two quarter graduate development economics sequence. We will focus on transition and democratization. Readings include journal articles plus two texts: Gerard Roland's *Transition and Economics* (MIT Press, 2000), and Daron Acemoglu and James Robinson's *Economic Origins of Dictatorship and Democracy* (Cambridge Univ Press, 2005). Evaluation will be by class presentation.

See also discussion of the international trade and development economics visiting speaker series below.

#### **Economics 440-2**

Economics of the Labor Market Professor Bernal TTh 11-1 AAH 3245

The topics to be covered in this course will include: 1) the evaluation of welfare programs, 2) models of human capital investment and labor supply, 3) synthesis of human capital investment, labor supply and savings, 4) equilibrium models of the supply of skill, 5) child "quality" production functions, 6) fertility, marriage and contraceptive use, and 7) the importance of non-cognitive skills in the labor market.

The course grade will be based on a presentation (35%), a term project (25%) and a final exam (40%).

#### Economics 450-2 Industrial Organization and Prices Professor Sweeting MW 1-3 AAH 3245

This is the second course in the industrial organization sequence. The first part of the course will study how consumer search and advertising affect market outcomes. We will then look at what determines market structure and product variety and analyze strategic behavior by firms. The course will cover theory, empirical techniques and empirical evidence.

Evaluation will be by problem sets and a final exam. Part of the exam will involve a review of a paper assigned the week before. Jean Tirole's *The Theory of Industrial Organization* (MIT Press, 1989) is required reading, but most of the readings will be recent published articles and working papers.

#### **Economics 481-2**

Econometrics Professor Horowitz MW 6:30-8:30PM

The course deals with the bootstrap, a method for estimating the distribution of an estimator or test statistic by resampling one's data or a model estimated from the data. It amounts to treating the data as if they were the population for the purpose of evaluating the distribution of interest. Under conditions that hold in a wide variety of econometric applications, the bootstrap provides approximations to distributions of statistics, coverage probabilities of confidence intervals, and rejection probabilities of hypothesis tests that are more accurate than the approximations of ordinary asymptotic distribution theory (e.g., asymptotic normal and chi-square approximations). The reductions in the differences between true and nominal coverage and rejection

probabilities can be very large. Therefore, the bootstrap greatly improves the reliability of finite-sample inference in econometrics.

The bootstrap is a practical technique that is ready for use in applications. This course explains and illustrates the usefulness and limitations of the bootstrap and why it is important in applied econometrics. The course covers the theory of the bootstrap, provides numerical examples of its performance and uses in applied research, and explains how it can be applied to time-series data and nonsmooth estimators like the least-absolute deviations estimator. There will be simple instructions on how to implement the bootstrap in applications.

There will be occasional problem sets. Each student will write a paper and make a 20-minute presentation of it to the class. In addition, everyone will be asked to present one of the main course topics to the class. There will be no examinations. The text for the course is Prof. Horowitz's chapter in the *Handbook of Econometrics*, Vol. 5. It can be downloaded from the class web page. There will also be readings assigned from the statistics and econometrics literature on the bootstrap.

#### **Economics 498-1**

AAH 3245

| Advanced Topics            |          |
|----------------------------|----------|
| Professors Hendel and Nevo |          |
| F 9-12                     | AAH 3245 |

This course will cover advanced topics in industrial organization. It is primarily intended for advanced students interested in the field, however, students in other fields may find the topics interesting. Solid econometric background is useful. The course will cover recent developments in the field, including dynamics and price discrimination. We will also survey IO papers that were presented as job market papers in the last few years. We are open to other topics students may be interest in. Evaluation is by problem sets and class presentation.

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#### **MECS 460-2**

Foundations of Management Economics Professor Kamien T 2-5 LEV 561

Dynamic optimization methods such as the calculus of variations, optimal control theory, and dynamic programming applied to problems in economics and management science.

#### **MECS 468-2**

| Selected Topics in Economic T | heory   |
|-------------------------------|---------|
| Professor Al-Najjar           |         |
| F 3-6                         | LEV 561 |

Selected Topics in Bounded Rationality and Behavioral Economics. This course covers recent work that incorporates psychologically plausible assumptions into economic and game theoretic models. Although the primary focus is on theoretical works and foundations, the course will also cover some recent experimental and psychological studies.

Coverage will proceed along two dimensions:

(1) Modeling tools: Psychological games; quantal response models; noisy introspection and k-level rationality; learning theory; evolutionary models; dual-self models.

(2) Specific biases: Equity and fairness; self-control; relative consumption effects; boundedly rational models of memory; confirmation bias; over-optimism and over-confidence; the sunk cost bias; classification heuristics and complexity.

#### **MECS 470**

Operations Economics Professor Lariviere Time & Location TBA

This course examines applications of the tools of economics and decision sciences to study the management of operations. It interprets operations broadly as the study of recurrent economic activities. Management refers both to higher level decisions necessary to enable these recurrent activities and to lower level

decisions to dynamically control these systems. Higher level decisions revolve around system design and planning and include process and product design; capacity investment; structuring supply relationships and contracts; and network planning. For given systems, the lower level decisions involve inventory management, customer service management, quality control, etc. (Clearly, both levels must be addressed iteratively, if not simultaneously.)

This course surveys this recent research that incorporates concepts from economics to consider how the self-interested behavior of agents impacts the system and how contracts and incentives can be structured to minimize any efficiency loss. It is intended to appeal to students interested in channel management and "micro IO".

It is primarily paper-based. Evaluation will include presentation of papers, in addition to the typical homework and endof-quarter paper.

#### **MECS 471**

Economics of Organizations Professor Matouschek F 9-12 LEV 619

The aim of the course is to prepare PhD students to contribute to the growing field of organizational economics. We will read a selection of classic and new papers in the field, and include a mixture of theory and empirical papers. The following is a partial list of the topics to be studied: the provision of incentives in firms, careers and career concerns, promotions and human capital acquisition, delegation and authority, effects of strategic transmission of information within firms, and causes and effects of hierarchy.

## MECS 477 Applied Econometrics II Professor Stern MTh 3:30-5 location TBA

This course provides a structured approach towards the development of a

practical econometrics tookit for use in PhD level econometrics research. The main textbook is Jeffrey Wooldridge's Econometric Analysis of Cross Section and Panel Data, and includes a number of problem sets requiring replication and extensions of published research. The course aims to provide students with a specific and systematic approach for assessing the plausibility (and limitations) of causal inference. This includes assessing the role of a behavioral model in the formulation of an econometric model, accounting for the potential impact of unobservables on estimation and inference, and evaluating behavioral and statistical sources of identification.

The course introduces specific tools and techniques, including instrumental variables estimation, M-estimation, GMM, maximum likelihood, discrete choice, and selection models.

#### Finance 487

Dynamic Asset Pricing Theory Professor Skiadas Time & Location TBA

This course covers the theory of arbitrage pricing, optimal consumption and portfolio choice, and competitive equilibrium pricing in dynamic financial markets. The first half of the course develops the discrete theory, and the second half introduces continuous-time modeling. The background mathematical methodology is also covered, including the basics of martingale theory and the Ito calculus.

The only prerequisite is Fin 485. The textbook is Darrell Duffie. *Dynamic Asset Pricing Theory* (Princeton Univ. Press, 3<sup>rd</sup> edition).

#### Finance 488

The Econometrics of Financial Markets Professor Schaumburg Time & Location TBA

The course covers current topics in empirical finance and related econometric methods. The main focus is on testing

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theories of asset price determination, exploring the interplay between economic theory, statistical assumptions and relevant econometric techniques.

## Economics 501 Seminar

The presentation of the first paper by the third year class is nearly complete. Presentation of the second paper will be predominantly held in the spring quarter, and will follow the randomized order listed in the September *Graduate Connection*, and any agreed changes to this order coordinated with Professor Pavan.

## Trade/Development Speakers

Again this year the Department will host a visiting speaker series in international trade and development economics. Graduate students can take this lecture series for credit by enrolling for an Independent Study with Professor Matsuyama in the **Spring Quarter**. This Independent Study can be combined with Economics 460-1 or 425-1 or 425-2 to satisfy a field requirement.

Besides attending the lectures, students must also write a short summary of the research presented by all the speakers (about 2x4 = 8 pages), and prepare a research proposal (of five to ten pages) on a related topic.

The lecture series consists of four or five speakers. Each of them will stay for one or two weeks, and give three to six hours of presentation.

Samuel Kortum and Giancarlo Corsetti have already visited in the fall quarter. In the winter quarter, Torsten Persson of the Institute for International Economic Studies in Stockholm will be here in the weeks for parts of the weeks of March 6 and March 13. His talks will be given from 9-11 on Tuesday March 7, Thursday March 9, and Thursday March 16 in AAH 3245. Professor Chung's 425-1 class will not meet on these days.

In the Spring Quarter, **Patrick Francois** of the University of British Columbia will be here for the week of May 8, and additional speakers may be added. Full

details of the spring lectures will be given in the March *Graduate Connection*.

# **Formal Announcements**

## Funding Guidelines

The Department has formal rules for the allocation of funding for students in years two through five. This document is posted on our web site. Please read this document as *the Department strictly enforces these funding criteria*.

## Preliminary Examinations

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

Dates for future prelim examinations have been set. The ordering of the three examinations will rotate each year. For the coming year, the dates are:

### Spring 2006 Sitting

| Wed June 14      | Econometrics            |
|------------------|-------------------------|
| Wed June 21      | Microeconomics          |
| Wed June 28      | Macroeconomics          |
| All examinations | will be held 1PM - 4PM. |

#### Fall 2006 Sitting

| Tues Aug 29       | Econometrics                    |
|-------------------|---------------------------------|
| Wed Aug 30        | Microeconomics                  |
| Thur Aug 31       | Macroeconomics                  |
| All examinations  | will be held 1PM - 4PM.         |
| Note: examination | ns are <i>before</i> Labor Day. |

## TA Periods in Residence

Each quarter that you are a TA, you <u>must</u> be in Evanston from the first day of classes until the Monday after examinations end (which is the day that grades are filed). 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 remainder of this year the dates for which you must be in attendance are:

Fall: Until Mon Dec 12

Winter: Tues January 3 - Mon March 20 Spring: Mon March 27 - Mon June 12

## Graduate School Deadlines

- **December 29** for admission to doctoral candidacy for the winter quarter. (However, if you are already registered for 598, you can apply by January 9 to change your registration to 599.)
- March 31 for admission to doctoral candidacy for the spring quarter
- March 31 to submit an "Application for a Degree" for all candidates who expect their degrees to be awarded in June.
- May 12 is the deadline for submission of completed dissertation and all supporting materials to receive the Ph.D. degree in June.
- May 19 is the last day for receipt of all materials for students who expect a master's degree to be awarded in June. Note that you no longer have to file for candidacy for a masters degree, and then file a committee report. You now simply have to submit a single Candidacy Certification form, available on The Graduate School's web site.

# **Funding Opportunities**

## Teaching Opportunities 2006-07

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 1. Students will be appointed on the basis of excellent performance as a lecturer or as a TA.

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## Funding Web Page

The web page listing non-departmental sources of funding has been updated. You can connect to it from the page giving information for current graduate students. The page gives information and links to internal and external fellowships, and also how to obtain funds for research expenses and attending conferences.

## NU Dissertation Year Fellowships

The Department will be nominating students for the Dissertation Year Fellowship (DYF) competitions offered by The Graduate School and by the College of Arts and Sciences. To apply you need to: C Prepare a brief (<1500 word)

- description of your dissertation, your progress to date, and the timetable to completion.
- C Obtain two NU faculty references.

Completed nominations should be given to Professor Ferrie by Friday, January 6. Application forms and further information are available as links from the funding page on our web site.

## NU Alumnae Dissertation Fellowships

This award offers a year of stipend and tuition to women who will be registered for 503 in 2006/07. Special preference will be given to those who have had to interrupt their academic careers. Note that the deadline is very close -- December 2. Applications are made directly to the Graduate School. Information and forms are able at links from the funding web page.

## 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 \$1,500, and there is funding for one conference a year that covers up to a maximum of \$400. 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 2005 income tax form (1040) before you complete the FAFSA.

## **Notes**

## Personal copy accounts

Graduate students can obtain a personal account on our copy machines. You will be billed at the end of each month at 5¢ a copy. To obtain an account please send an e-mail to the Associate Chair <ipsavage@northwestern.edu> with your name and a 5-digit number to be used as your personal access code (the number must not start with a 0).

## Next Graduate Connection

Volume 11, number 3 will be published in the week of March 6.

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