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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 Monday December 25, Tuesday 26, Friday 29 and Monday January 1. The winter quarter commences on **Wednesday**, January 3.

Distinguished Teaching Assistants

The Distinguished Teaching Assistant Awards for 2005-06 were presented at the start-of-year buffet on October 12. The winners of a certificate and a year's subscription to *Econometrica* were **Jonathan Huntley, Tim Lin, Dan Liu, Sorin Maruster** (all re-awards) **Muhammad Faress Bhuiyan, Erin Todd Bronchetti, Jesse De Lille, Tatiana Komarova, Siddarth Madhav, Ralf Meisenzahl, Jason O'Connor, and Viswanath Pingali**. 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 **Federico Bugni**. This fellowship is awarded annually to a graduate student who has

distinguished him- or herself in *both* teaching and research.

Visitors

We will be welcoming **Enno Mammen**, an econometrician from the University of Mannheim of the week of January 22. Another econometrician, **Oliver Linton** from LSE will visit in mid February. In addition, we have a large number of visitors coming in the Spring Quarter. Details will be provided in the March *Graduate Connection*.

Additional Field Courses

The Department is pleased to announce that we have added two field courses. In the winter quarter, Professor Johannes Hörner will be teaching a theory class (Economics 412-1). This course will be taught in the early evenings on Tuesdays and Thursdays. Details are in the teaching section below. In the Spring Quarter, Eric French from the Federal Reserve Bank of Chicago will be teaching a public finance course. Details will be published in the March *Graduate Connection*.

Congratulations

Congratulations to Professor **Dale Mortensen** on receiving the Society of Labor Economists' Jacob Mincer Award, which is a "career achievement award for lifetime contributions to the field of labor economics."

Congratulations to a team of our undergraduates on winning the College Federal Reserve Bank Challenge for the third year in a row. Our team of **Joshua Goldstein, Fred Herrmann, Rosa Li, Joshua Plavner** and **Jeanne Ruan** beat out sixty others schools to advance to the final in Washington DC where they went

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before Vice-Chairman Don Kohn 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.

Graduate Studies Committee

The Department's Graduate Studies Committee met on November 30. The committee includes student representatives Ryan McDevitt (2nd year), Ben Handel (3rd year) and Reinout DeBock (5th year). The committee discusses matters of relevance to our graduate program. Please contact Professor Taber, Director of Graduate Studies, or any of your representatives regarding topics to be discussed at future meetings.

Events

AEA Annual Meeting

The annual meetings of the American Economics Association will be held in Chicago at the Hyatt Regency (151 East Wacker Drive) on Friday to Sunday, January 5-7. Student registrations at \$35 can be made on-line at the AEA website by December 2 (or \$55 on site). Because of the location and timing, it is unlikely that scheduled graduate classes will need to be changed. If you are at the conference, stop by the NU annual cocktail party in the Acapulco room of the Hyatt from 6-8pm on the Friday.

Martin L. King, Jr. Day

On Monday, January 15, all classes are canceled in observance of Dr. Martin Luther King Jr. Day. This is a change from previous years when classes were canceled for only a few hours in the middle of the day. There will be no undergraduate or graduate classes. It is also inappropriate to hold discussion sections or office hours.

While classes are canceled, the university will not be closed for the day. Departmental and other university administrative offices will be open. There will be numerous events held on campus to celebrate the life and legacy of Dr. King.

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.

Economics 412-1

Economic Theory and Methods

Professor Hörner

TTh 5:30-7:30p

AAH 3245

The course covers advanced topics in game theory. Topics include repeated games, reputation, communication, and bargaining. The emphasis will be on recent developments in the field, and the lectures will be based on articles. Evaluation will be by a final exam. Readings will consist of articles. In addition there are two excellent, but optional, books: Drew Fudenberg and Jean Tirole *Game Theory*, (MIT Press, 1991), and George Mailath and Larry Samuelson *Repeated Games and Reputation* (Oxford U.P., 2006).

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 principal-agent 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 Monge

TTh 11-1

AAH 3245

The course will be divided in three parts. The first part will cover topics of dynamic contracts and their application to aggregate dynamics. The topics include consumption, asset pricing and investment. The course will cover both the traditional discrete time formulation as well as recent developments in optimal contracts in continuous time. The second part will review the literature on sovereign debt. The third part of the class will study the recent literature on quantitative models of international trade and their application for growth and business cycles of open economies. Evaluation will be based on a presentation and a take home exam. (A previously approved paper can be substituted for the exam.)

Economics 420-2

European Economic History

Professor Mokyr

TTh 9-11

AAH 3245

This course will deal with the origins of modern economic growth in the West between 1700 and 1900. The problem of growth will be analyzed through the models of modern growth economics and the evidence and data amassed by economic historians on the Industrial Revolution and the emergence of the modern economy. After 2 weeks of introductory lectures, each student is responsible for at least two class presentations of about 40 minutes each, in which he/she will present a paper or chapter by an economist or an economic historian. Grades will be assigned to the presentation, as well as to the subsequent discussion.

The requirements for the course are class participation, class presentation, and a research paper. The research paper is due

no later than a year after the end of the course. The aim of the research paper should be to write an original paper using economic theory and/or historical data to investigate a topic in European economic history. The material covered in the course is recommended, but any topic about any European economy prior to 1989 will be acceptable subject to approval.

Economics 425-1

Theory of Economic Development

Professor Buera

TTh 9-11

AAH 3204

This course will study theories explaining the observed pattern of economic development across countries and across time. Lectures will research various theoretical models, but the emphasis will be on evaluating the quantitative relevance of these theories. The main focus of the course will be on aggregate data and quantitative general equilibrium models, but will also review empirical studies of the micro underpinnings of these models. Students will study theories featuring differences in factor accumulation: physical capital, human capital, health; distortions in the distribution of factors of production: reallocation frictions, with a special emphasis on financial frictions; structural change and industrialization; and barriers to technology adoption, diffusion of technologies and its relationship with international trade.

The course grade will be based on problem sets, class presentations and a take home final exam. Readings will be from journal articles and recent working papers.

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

Economics 450-2

Industrial Organization and Prices

Professor Sweeting

TTh 1-3

AAH 3245

Topics discussed include the determinants of market structure (entry

models), market dynamics, vertical relationships, network externalities, advertising and R&D. The course closely relates theory and empirics. In particular, it will discuss recent empirical work including many recent job market papers.

There will be several problem sets, including an empirical exercise. There will also be a class discussion each week on an assigned paper. Students may choose to write a research proposal or paper, or take a final exam. The paper option is recommended for people who wish to do research in IO.

Economics 481-2

Econometrics

Professor Tamer

MW 11-1

AAH 3245

This course will be divided in two parts and will be concerned with inference in some cross sectional model. The first part will go over a set of semiparametric models and study identification and statistical inference. Examples include: the binary response model such as the maximum score estimator and its smoothed version, the average derivative estimator and Ichimura's single index estimator; quantile based estimator for linear models with and without censoring. Throughout, emphasis will be placed on the role support conditions play in guaranteeing point identification and study in details the asymptotic properties of the corresponding estimators.

The second half of the course will review recent advances in inferential procedures for partially identified models. It will start with some economic models that lead to well defined models that only partially identifies the parameter of interest. This will help motivate the use of statistical methods for estimating sets of parameters and deriving confidence regions when parameters are not point identified.

The course will go through a set of (mostly working) papers and visit the approaches taken. Evaluation will be by a set of homework problems, and each student will be required to present in class, a paper

that is not discussed in lecture. No exams will be given.

Economics 483

Cross-Sectional Methods

Professor Manski

MW 1-3

AAH 3245

The course will examine approaches to empirical inference on decision rules and prediction of choice behavior, with emphasis on identification problems. The first part will examine the forms of revealed preference analysis proposed by Samuelson and McFadden. The second part, concerned with decision making with partial knowledge, will consider the traditional practice of making assumptions on expectations and describe the emerging literature that measures expectations empirically. The third part will consider the recent use of neuroimaging to observe aspects of brain operation in the course of decision making.

Economics 498-2

Advanced Topics

Professors Hendel and Whinston

M 3-6

AAH 3204

The course will cover empirics of contract and organizations. Subjects to be covered include: moral hazard and incentives to provide effort, testing for adverse selection, contract dynamics, decision rights, transaction costs, implicit/relational contracts, and vertical contracts. The emphasis will be on the empirical literature, and its links to the relevant theoretical foundations. *Students should note the overlap of material with that presented in 450-3 last Spring Quarter.*

MECS 460-2

Foundations of Management Economics

Professor Kamien

T 2-5

LEV 586

This course provides a rigorous introduction to the tools, techniques and

concepts of game theory. There will be two weeks of cooperative game theory. The remaining eight weeks will be devoted to mainstream non-cooperative game theory: extensive and normal form representations of games, dominance and rationalizability; Nash equilibrium; correlated equilibrium; persistence; tremble-based refinements in the normal form; backward induction; sequential equilibrium and extensive form-perfect equilibrium; belief-based refinements and forward induction; stability; repeated games and folk theorems; cheap talk and renegotiation; and purification of mixed strategies.

MECS 468-2

Selected Topics in Economic Theory

Professor Al-Najjar

F 3-6

LEV 586

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, it 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 Allon

Th 1-4

LEV 586

The course examines applications of the tools of economics and decision sciences to study the *management of services*. Topics include: pricing services,

introduction to queueing theory, competition in service industries, the economics of aftermarkets, services as experience goods, the interface between marketing and services and service outsourcing (service networks and contracts). Evaluation will be by in-class presentations of selected papers and a research proposal.

MECS 477

Applied Econometrics II

Professor Stern

MTh 3:30-5

Room TBA

This course provides a structured approach towards the development of a practical econometrics toolkit for use in PhD level econometrics research. The course has two overarching goals: the introduction and use of specific tools and techniques, and the development of an integrated approach to the use of statistical methods in business school research.

The course develops the behavioral and statistical foundations of econometric approaches to testing causal models of individual, firm, and market behavior. 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.

MECS 516

Economics and Politics

Professor Battaglini

Th 4-5:30

LEV 586

Focused on analytical models of political institutions, this course is organized around canonical models and their applications. These may include: voting models, menu auctions, models of reputation and cheap talk games. These models are used to explain patterns of participation in elections, institutions of

congress, lobbying, payments to special interest groups and other observed phenomena. Particular emphasis is given to dynamic models. Evaluation will be by class participation and a final project. The class is based on original papers and no textbook is used.

Finance 487

Dynamic Asset Pricing Theory

Professor Skiadas

M 3-5

AAH 4214

This course will cover basic arbitrage and equilibrium models of competitive asset pricing in dynamic settings. The course starts with the theory on a finite information tree, and proceeds to models with continuous information. Topics include the arbitrage pricing of derivative securities (including American options), the dynamic implementation of Arrow-Debreu equilibria, consumption-based asset pricing using recursive utility, and optimal lifetime consumption-portfolio choice. The necessary mathematical tools will be introduced, including some martingale theory, the Ito calculus, and stochastic control. Familiarity with the material of Fin 485 will be assumed.

Finance 488

The Econometrics of Financial Markets

Professor Schaumburg

Time & Location TBA

The course introduces students to the commonly used econometric methods in empirical finance. Topics include the predictability of asset returns and testing the Capital Asset Pricing Model, intertemporal equilibrium models, present value relationships, derivative pricing and term structure models. The text is John Cochrane *Asset Pricing* (2nd edition, Princeton UP, 2005). Evaluation will be by homework sets, an empirical project and referee reports.

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 is hosting 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 courses in the Economics 425 or 460 sequences to satisfy a field requirement.

Two speakers visited in the Fall Quarter. Another three speakers will be here in the Spring Quarter. 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 2007 Sitting

Wed June 13 Microeconomics

Wed June 20 Macroeconomics

Wed June 27 Econometrics

All examinations will be held 1PM - 4PM.

Fall 2007 Sitting

Tues Sept 4 Microeconomics

Wed Sept 5 Macroeconomics

Thur Sept 6 Econometrics

All examinations will be held 1PM - 4PM.

Note: examinations are *after* Labor Day.

TA Periods in Residence

Each quarter that you are a TA, you must 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 11

Winter: Wed January 3 - Mon March 19

Spring: Mon March 26 - Mon June 11

Graduate School Deadlines

December 28 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 30 for admission to doctoral candidacy for the spring quarter

March 30 to submit an "Application for a Degree" for all candidates who expect their degrees to be awarded in June.

May 11 is the deadline for submission of completed dissertation and all supporting materials to receive the Ph.D. degree in June.

May 18 is the last day for receipt of all materials for students who expect a master's degree to be awarded in June.

Funding Opportunities

Teaching Opportunities 2007-08

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.

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 Taber by Friday, January 5. Application forms and further information are available as links from the funding page on our web site.

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 July 2. The Graduate School recommends that you file by March 1. It is often useful to have completed and filed your 2006 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 6¢ 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 12, number 3 will be published in the week of March 5.