

Graduate Connection

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December 2021

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News

Happy Holidays!

The faculty and staff extend their best wishes for a happy holiday season. The University is officially closed from the end of business on Wednesday December 22 and reopens on the morning of Monday January 3. This is also the first day of Winter Quarter. During the closure period your Wildcard is needed to access the building.

Winter Quarter

Winter Quarter classes start on Monday January 3. The last day for changing or adding a class is 5pm on Friday January 7.

Distinguished Teaching Assistants

The Distinguished Teaching Assistant Awards for 2020-21 were presented at the start-of-year reception on October 1. The winners of a certificate, a limited-edition coffee mug, and a year's membership to the Econometric Society or the American Economic Association were **Yong Cai, Modibo Camara, Kwok Yan Chiu, Alex Doser, Gaston Lopez, Edmund Lou, Matteo Magnaricotte, Miguel Moreira Santana Freire, Laura Murphy, Filip Obradovic, Jason Premo, Tomas Wilner, Ashley Wong** and **Tomer Yehoshua-Sandak**.

At the reception, the 2019-20 winners, who were listed in the December 2020 *Graduate Connection*

received their certificates and mugs.

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.

Susan Bies Research Prizes

Also awarded were the 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 2020-21 were **Jose Alvarado** for "Tax Evasion, Heterogeneous Rate of Returns, and Wealth Inequality" and **Anran Li** for "Limited Commitment, Competition, and Market Segmentation in Non-Acute Care Provision."

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.

Robert Eisner Memorial Fellowship

Also awarded were two fellowships to honor the late faculty member and AEA President Robert Eisner. For 2021-22, the Fellowships are awarded to **Francisco Pareschi** and **Maren Vairo**. The fellowship or fellowships are awarded annually to fourth-year

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students who have distinguished themselves in both teaching and research.

Graduate Studies Committee

The Graduate Studies Committee is a forum for feedback from graduate students to the faculty on the graduate curriculum, programming, and administrative processes. It meets each quarter.

The three elected student representatives for AY 2021-22 are **Federico Crippa** (Second Year), **Hans Zhu** (Third Year) and **Eduardo Campillo Betancourt** (Fifth Year). Students are encouraged to share concerns and suggestions with their representatives.

Faculty Changes

In January we welcome alum **Maxim Sinitsyn** as an Associate Professor of Instruction. He has research interests in microeconomic theory and industrial organization. He joins us from the University of California, San Diego. He will be in room 3227.

Staff Changes

James Harrington joined us in November as the Assistant Director of Administration and Undergraduate Student Services. His office is room 3293. He joins us from the University of California, Santa Barbara.

Visitors and Postdocs

Visiting us starting in the Winter Quarter are theorist **Larry Samuelson** from Yale University, macroeconomist **David Argente** from Penn State University, and theorist **Chiara Margaria** from Boston University.

Four of our existing visitors and postdocs remain with us for the entire year: theorist **Christoph Carnehl** from Bocconi University, macroeconomic

and public finance theorist **Carlos da Costa** from FGV EPGE Brazilian School of Economics and Finance in Rio de Janeiro, economic historian **Sebastian Ottinger**, and development economist **Sarah Deschênes**.

For Your Information

Help and Support

We have collated together a listing of help and support resources, both within the department and within the university. It is in the [Graduate > Current Student Resources](#) part of our website, and also in the *Graduate Student Handbook*. If you have any suggestions for additional topics, please tell **Alison Stoute**.

Graduate Student Opportunities Website

The Department has a website for graduate students with information on:

- Conferences
- Resources at NU
- Fellowships
- Programming at NU
- Events outside NU
- Counseling Services (CAPS)
- Job Opportunities

See the weekly update e-mail or visit: <https://sites.google.com/view/nuecon-grad-opportunities/home>

Events

Center for Economic History Conference

In a couple of days on Friday December 3, the CEH hosts a one-day virtual conference on *methodological advances in the extraction and analysis of historical data*. More information at [this website](#).

Political Economy Conference

The 14th Annual Political Economy in the Chicago Area (PECA) Conference is coming up in a couple of days on Friday December 3. To view the program and to register, go to the conference [website](#).

AEA Annual Meeting

The annual meetings of the American Economic Association are virtual and run from Friday to Sunday January 7-9.

Martin L. King Jr. Day

On Monday, January 17, 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 25-26, 2022. The Center for Economic History will hold the *War & Economic History* conference reschedule from 2020.
- Tuesday, April 26, 2022: The normally-annual Susan Bies (PhD, 1972) lecture on economic policy. This year's speaker is **Darrell Duffie** of Stanford University (who was scheduled to speak in 2020). The lecture is at 4pm in White Auditorium.
- May 20-21, 2022. The Center for Economic History will hold a book conference on Walker Hanlon's new book, *The Rise and Fall of Laissez Faire*.
- The next Northwestern-Toulouse industrial organization conference is scheduled for June 17-18, in Toulouse, France.

Teaching

Maintaining Full-time Status

You must be registered for at least three course credits each quarter to be considered a full-time student.

First year students are automatically full time in Fall, Winter and Spring as they are registered for 410, 411 and 480.

For students in years 2 and 3 in Fall, Winter and Spring Quarters, if you are registered for one course add 1 unit of Economics 590. If you are registered for one or zero courses add TGS 500. TGS 500 is listed for zero credits but assures fulltime status (and allows registration in up to one course).

Students in years 4 and above should register for TGS 500 (or TGS 512 in certain circumstances) which is considered a full-time registration.

Students in all years should register for TGS 500 in summer quarter.

Incomplete Grades

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

This Quarter's Course Descriptions

Advice on Field Sequences

The Department has guidance on [acceptable field course sequences](#). These are posted in the Graduate > Degree Requirements and Goals > Second- and Third-Year Goals section of our website.

Department of Economics Classes

Professor **Yingni Guo's** Econ 414 class originally scheduled for the

Winter Quarter has been moved to the Spring Quarter.

Economics 412-2

Economic Theory and Methods

Professor Golub

MW 1:00-2:50

KGH 1410

The Economics of Networks. This course prepares students for pure and applied research in the economic theory of networks. Topics covered include the macroeconomic network of production and trade; games of investment with social spillovers (education, criminal activity); financial contagion and other externalities; diffusion of beliefs and behaviors; segregation and homophily; and networked markets.

The course emphasizes portable methods, including the linear algebra behind centrality measures; random graph theory; branching processes; power laws and Pareto tails.

Readings include books by Matthew Jackson, *Social and Economic Networks* (Princeton U.P., 2010) and David Easley and Jon Kleinberg *Networks, crowds, and markets* (Cambridge U.P., 2010).

Economics 415-1

Advanced Microeconomics

Professor Strulovici

TTh 11:00-12:50

KGH 1410

This course covers optimal control and stopping theories and 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 in finance, optimal entry/exit decisions in IO, and dynamic principal-agent models.

The course also investigates 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, and an application to labor economics.

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

Economics 416-2

Advanced Macroeconomics

Professor Doepke

TTh 3:30-5:20

KGH 3301

This class focuses on macroeconomic issues and models with a central role for household heterogeneity and household decision-making. It includes life-cycle models and models of household bargaining. Applications include the determination of aggregate labor supply and savings, macroeconomic models of the evolution of inequality and social mobility, issues in "family macroeconomics" such as fertility decisions and models of marriage and divorce, applications to economic growth and development, and political-economy applications to voting and institutional change. An additional focus of the class is on models of endogenous innovation.

Evaluation is by problem sets (including projects focusing on numerical methods and replication), class participation, and by the submission of a research proposal related to the topics discussed in the class.

Economics 420-2

European Economic History

Professor Mokyř

TTh 9:00-10:50

KGH 3301

The course is devoted to recent papers in economic history written in the language and tradition of modern economics. Economic theory and econometric methods have been applied to historical issues utilized new and innovative databases. The course surveys a sample of this recent literature, provides a historical context to them, and aims to motivate and stimulate similar research.

There are two lectures each week. Each meeting is devoted to a different topic that has been of concern to researchers in the field. Class attendance, in person, is required and is monitored, and non-attending students may be dropped from the course.

Economics 425-2

Development Economics

Professor Udry

MW 1:30-3:20

KGH 3301

The focus is the study of the microeconomics of development. Topics include household organization, gender, agriculture, technological change, and finance, risk, and uncertainty. The course emphasizes the interplay between theory, observation, experimentation, and econometric testing, and how these work within and across papers from research programs. A primary goal of this course is a critical reading of the current literature.

Students are expected to do all the required reading and to participate in class discussion. Evaluation is based on a series of assignments (referee reports and presentations) and a research proposal.

Economics 436-2

Public Finance

Professor Schnell

MW 9:00-10:50

KGH 3301

Health Economics. This course introduces theoretical models and empirical applications in health economics. Topics include the production and measurement of health, the provision and design of health insurance, causes and consequences of provider behavior, and competition in health care markets.

The course complements Professor Dranove's MECS 551-1 (Fall 2021). Some topics build on work discussed in the Fall, but MECS 551-1 is not a prerequisite.

Evaluation is based on in-class presentations of research papers, a final exam, and an original research proposal or project. (Students who took MECS 551-1 should complete the research project they started in the Fall; students who did not take MECS 551-1 are asked to develop a comprehensive research proposal).

This course was taught in previous years as Economics 498-1.

Economics 450-2

Industrial Organization

Professors Illanes and Porter

MW 11:00-12:50

KGH 1410

An introduction to several topics in industrial organization theory and empirical analysis. Topics include non-parametric identification of demand systems; applications of fixed grid estimators; estimation of cost and tax pass-through; applications of moment inequalities; price discrimination; entry, growth and turnover; advertising and information disclosure; vertical relations; auction markets and bidding. The emphasis is on the estimation and testing of game theoretic models, and especially on recent developments in the field.

Economics 450-1 is a prerequisite. Evaluation is by several problem sets and a final exam.

Economics 460-1

International Economics

Professors Eichenbaum / Lorenzoni

TTh 1:30-3:20

KGH 3301

The course covers the main tools of open economy macro and some recent developments. In particular, it covers the determinants of financial flows across countries, the effects of monetary and fiscal policy in open economies, international asset pricing puzzles and currency volatility, policy spillovers and coordination, the choice of the exchange rate regime, the determination of price differences across borders and the pass-through of exchange rate shocks, monopoly power and price setting in different currencies, the role of capital controls and currency interventions, the propagation of financial crises across borders and the secular determinants of current-account imbalances.

Economics 481-2

Advanced Econometrics

Professor Auerbach

MW 5:30-7:20pm

KGH 3301

An introduction to various econometric methods for social and economic networks. Preliminary topics include statistical models of social interaction and network formation, community detection, contagion and shock propagation, and sampling. About two-thirds of the course is focused on theory (i.e. definitions and proving things) while the remaining one-third focuses on computational issues and empirical applications. Some course material may be altered to reflect the interests of enrollees.

Evaluation is by a project proposal that may be theoretical or empirical in nature.

Other Departments' Classes

See the Department's field sequence rules before registering for any of these classes.

Finance 585-2

Asset Pricing II

Professor Papanikolaou

F 1:00-4:00

KGH 4302

This course covers advanced topics in the intersection of finance and macroeconomics. The class emphasizes current topics along with state-of-the-art tools.

The first part covers the basics of dynamic models of arbitrage pricing, portfolio choice, and equilibrium in frictionless markets. The second part covers a selection of topics of current interest: asymmetric information models, borrowing constraints and other frictions, models with non-standard preferences, models with production, etc.

Evaluation is based on problem sets, which emphasize both analytical as well as numerical skills. Familiarity with a modern computing language (MATLAB, Julia, or C++) is assumed.

Though the course proceeds at a brisk pace, familiarity with the material in FINC 585-1 is not required.

Finance 586-2

Corporate Finance II

Professors Benmelech and Sapienza

F 9:00-12:00

KGH 4302

This course provides a broad overview of major topics in empirical corporate finance including capital structure and financial contracting, real investment behavior, financial intermediation, financial distress, corporate governance, and law and finance.

The aim is to prepare students to do research in empirical corporate finance by discussing empirical papers related to the theories formulated in Finance 586-1 and developing identification strategies for testing corporate finance hypothesis.

There is an emphasis on how to develop good research ideas. 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 is devoted to teaching how to use the basic databases in finance. Empirical exercises to learn to extract and manipulate those data are given to the students. At the end of the course, the students will have mastered how to use the most common databases in finance.

MECS 540-2

Political Economy II: Conflict and Cooperation

Professor Baliga

F 2:00-5:00

KGH 4130

This course offers a theoretical treatment of conflict. Strategic interaction within and across nations involves conflict and cooperation. Disagreement between a country's population and its leadership can cause internal conflict, oppression, and terrorism. Disagreement between countries can lead to war, costly arms races and impede economic development. Conflict often arises even though there is some cooperative solution that would have satisfied all the relevant actors. The course studies the fundamental causes of conflict (positive analysis) and possible solutions that create cooperation (normative analysis).

Evaluation is based on in-class presentations of papers or new research ideas that might form part of a dissertation.

MECS 549-2

Technology & Innovation

Professors Jones and Wang

Th 3:30-6:30

KGH 4302

This course begins by establishing fundamental ways in which ideas differ

from other goods. The course then uses these concepts to evaluate the origins of innovation, economic growth, firm dynamics, entrepreneurship, innovation clusters, and the diffusion of new technology.

The course introduces both macroeconomic and microeconomic approaches to assessing the "ideas production function", with special attention to the roles of human capital, institutions, and incentive systems. The role of science and scientific progress are also considered in depth.

The course emphasizes how the unusual characteristics of ideas can result in social inefficiency, and how the microeconomic and institutional environment influences the gap between private and social welfare. In tandem with theoretical approaches, this course substantially reviews core empirical literature, including methods and data sets that are suited to studying ideas and innovation.

The course is appropriate for PhD students in economics, as innovation touches virtually all fields of economics -- including economic growth, industrial organization, labor economics, finance, the economics of organizations, and urban economics. At the same time, the subject matter interacts with many other social phenomena and is at the heart of a new field called "the science of science," which draws upon many disciplines. As such, the methodologies considered will extend beyond the usual econometric toolkits to include network, big data, and machine learning approaches.

Evaluation will be based on a group problem set, a brief referee report on a paper from the class, and a short (3-5 page) paper proposal relevant to the topics of the class. This course can form a sequence with MECS 549-0, but either course may be taken as stand-alone material.

MECS 550-3

Economic Theory III: Doing Research in Economic Theory and Related Areas

Professor Sandroni

Th 6:00-9:00pm

KGH 4130

This course relies on informal discussions of research ideas. The main objective is to find good dissertation projects and to develop these projects. In sum, the main idea is to facilitate the transition from student to researcher using a learning by doing approach. The research topics depend on students' interest and are typically determined in the first and second classes. There are no exams.

MECS 560-2

Dynamic Optimization in Economics

Professor Molavi

Th 3:00-6:00

KGH 5301

The course covers the models and mathematical techniques for discrete and continuous-time dynamic optimization under uncertainty, with an emphasis on applications in economics. It covers the variational approach, dynamic programming, Bellman equation and the principle of optimality, the optimal-control approach, the HJB equation, stopping-time problems, multi-armed bandits, and the Gittins' index theorem.

Evaluation is based on several problem sets, a midterm exam and a final exam. The main textbooks are *Recursive Methods in Economic Dynamics* by Stokey, Lucas, and Prescott (Harvard U.P., 1989), *Introduction to Modern Economic Growth* by Acemoglu (Princeton U. P., 2009), and *Optimal Stopping and Applications* by Ferguson (online lecture notes).

Formal Announcements**Good Progress Milestones**

The Department has formal guidance on good progress at the end of each year. Please take a moment to review these on our [website](#) so that you are well prepared for certifying good progress next summer.

TA Periods in Residence

Each quarter that you are a TA, you are expected to be available on weekdays starting on the first day of classes and continuing until the Monday after examinations end (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 does not tolerate this. You must arrange your vacation airline flights 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 is grounds for rescinding your TAship. For the rest of this year the dates for which you should be in attendance are:

Fall: until Mon Dec 13

Winter: Mon Jan 3 - Mon March 21

Spring: Tues March 29 - Mon June 13

Graduate School Deadlines

Deadlines for students wishing to receive a MA or PhD degree in March.

January 28 Application for a Degree.

February 25: Completed dissertation and all supporting materials for the PhD degree.

March 11: Final examination report and any change of grade forms for the MA degree.

If you wishing to receive a MA or PhD degree in June, the Application for a Degree is **February 4**.

Students Funded on NSF Grants

The National Science Foundation (NSF) requires all students supported by them to undergo training in the responsible conduct of research. This is 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 **Marciano Siniscalchi** leads the face-to-face part of the class.

Funding Opportunities**NU Dissertation Year Fellowships**

Dissertation Year University Fellowships (DYUF) are usually 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 Program Manager between February 1 and February 15.

NU Summer Fellowships

Summer Fellowships are available to students in years one through five. An online acceptance form and contract is submitted in May. More details in the next *Graduate Connection*.

Sixth year (and above) students should note that The Graduate School specifies that Summer University Fellowships are not available for students beyond year 5.

Funding for Research-Related Travel and Expenses

TGS has available funds to pay for research expenses and for travel to conferences. The maximum one-time research grant is \$3,000. 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](#).

One of the necessary conditions for obtaining TGS conference support is the commitment of the department to contribute \$200 in matching funds to the expenses if a student's application is successful. The Department contributes \$100 from the Eisner account and requires that the other \$100 is covered by the student's advisor.

Overseas Travel

If you are traveling internationally on professional business, the NU Office of Global Safety and Security (OGSS) asks you to [register your itinerary](#). This allows practical assistance in an emergency. The website also has informational on international health insurance coverage.

Notes

Next Graduate Connection

Volume 27, number 3 will be published on March 1.
