

Economics Spring 2021 Course Listing

Spring 2021 enrollment is upon us- though delayed until Winter Break! Read through this document thoroughly so you can effectively work with advisors and enroll yourself in classes best for you.

Modality:

Spring 2021 will look similar to Fall 2020 in terms of structure and modality. Teaching modality (online or in person) and class times (online synch or online asynch) are still being collectively determined. When we have a finalization of these aspects for all our courses, we will inform you as quickly as possible and they will be on Course Search and Enroll by early December. See Office of the Registrar emails for updates.

Lectures that are more than 50 students will automatically be put online in Economics. Lectures with 49 students or less, and all discussions, are still being determined for modality.

Class Enrollment Reminders:

General Electives in economics and Advanced Economics Electives are listed here. Do not get these groupings mixed up. A mistake distinguishing between these two categories could cost you a whole semester. Remember, our definition of “advanced” is *not* the same as UW’s academic level description, so ensure you choose courses from the Advanced Electives section seen on this document to count for your Advanced Economics Electives.

Credits for these listed classes vary each semester and are determined based on enrollment size. Ensure you enroll for the correct number of credits. Economics classes *fill quickly and* enrolling on a waitlist is never a guarantee of enrollment. Waitlists will not be largely dealt with until the beginning of the Spring 2021 semester.

A collective list of FAQs can be found <https://econ.wisc.edu/spring-2021-faq/>

Honors in the Major

Econ 312: Intermediate Macroeconomic Theory (Adv. Treatment/Honors course)

Professor Simeon Alder, 3 credits

This is the honors version of Econ 302, *offered only in Spring*, and initially open only to students doing College Honors or Honors in the Major. Students in this class are considering doing honors or look for a smaller, more mathematically rigorous course to meet the intermediate macroeconomics requirement. Themes in this course are the same as 302 but will be taught more in-depth and in an accelerated fashion. This course is required of students doing Economics Honors.

Pre-reqs: Econ 101 and 102, or 111; and Math 222. Not open to students with credit for Econ 302.

**Econ 580 is needed for EconME Honors as well but is an Advanced Elective and is housed under that category

General Electives in Economics

Econ 370: Economics of Poverty and Inequality

Professor Geoffrey Wallace, 3 credits

Students will learn how to analyze the patterns and causes of poverty and inequality in the United States. Topics covered will include the measurement of poverty and inequality, historical perspectives on poverty and inequality, theories of poverty and inequality, and policy responses designed to reduce poverty, alleviate the condition of poverty, or combat inequality. Expect in-class participation, weekly reading assignments, and multiple exams.

Pre-reqs: Econ 101 and 102, or 111; and Econ 310

Econ 390 (Lecture 001): The Chinese Economy

Professor Stella Chan, 3 credits

The rise of China as an economic powerhouse is rapidly reshaping the global economic landscape. This course will examine the history of China's economic reforms and development, the nature of its growth, and the fundamental institutions that underlie its economic transformation. The integration of this powerful economy and its impact on the world economy through trade and financial flows will be examined. Lastly, this course will consider some of the major challenges modern China faces, such as regional inequalities, environmental concerns, and the prospects for sustainable growth in the future. Students are expected to provide responses to reading assignments, participate in online and class discussions, and complete a research project that will be shared with the class in both oral and written form.

Pre-reqs: Econ 101 and 102, or Econ 111

Econ Econ 390 (Lecture 002): Challenges for Markets

Professor Elizabeth Kelly, 3 credits

This is a course looking at issues arising in markets due to the existence of externalities, public goods, monopoly power, natural monopolies, or asymmetric information. Students will consider several different examples of market failures and solutions poised to address them. For example, the course will consider opt-in versus opt-out policies and the efficacy of the choice of policy design. The course will integrate current policy issues with both traditional Economics as well as the insights possible through incorporating behavioral Economics. Readings will draw from current reporting as well as books like [Predictably Irrational](#), [Nudge](#), and other popular press books and articles. The course is designed for those who already understand basic consumer and producer theory. The course will include two midterms, a final, problem sets, multiple essays, and a presentation video.

Pre-reqs: Econ 101 and 102, or 111 (Econ 310 is preferred, but not required)

Econ 390 (Lecture 003): Visualization & Analysis

Professor Gregory Pac, 3 credits

This course will convey the fundamental concepts of economic data visualization and analysis. Students will develop a toolkit of skills to visualize, interpret, and communicate data. After examining the fundamentals of data visualization, emphasis is on methods using Tableau to design and develop dashboards, graphs, and charts to ease quick and accurate interpretation of economic relationships. Students will move beyond tabular results to display and demonstrate the findings of economic research.

This is a hands-on course which will require the use of a computer and to complete assignments in Tableau during and after class. The course will also provide a very brief overview of MS Excel. There will be 4 homework assignments where students will build visualizations using Tableau, an individual semester project, and a take-home final exam.

Pre-reqs: Econ 101 or 111; and Econ 310

Econ 466: The American Economy Since 1865

Professor James Walker, 3 credits

Econ 466 is a small course that will allow you to gain some practice writing. It will count toward your 30 required Econ credits and give you intermediate level LAS credits. The course will employ rigorous and systematic thought common to both economics and history but will keep the use of formal mathematical tools to a minimum. We will discuss industrialization and urbanization, immigration, development, and crisis in the financial system, and increasing government participation in economic matters and regulation, along with the impact of war, discrimination, and the emergence of the large corporation.

Pre-reqs: Econ 101 or 111

Advanced Electives in Economics

Declared economics students must complete a **minimum of 2 Advanced Economics** courses from UW Madison.

Econ 400: Introduction to Applied Econometrics

Professor Matthew Friedman, 4 credits

Econ 400 introduces applied econometrics – the body of statistical methods economists use to evaluate empirical relationships and test economic theories. The focus is on the application of these methods to the analysis of real-world data. Students who best learn through hands-on experience in analysis should choose this class. Problem sets make extensive use of the statistical software package STATA. This course intends to provide econometric skills necessary to read and understand empirical papers which statistical models can be used to establish causal relationships. Topics include: univariate & multiple regression, differences-in-differences, instrumental variables, limited dependent variables, time series, and fixed-effects models. This course is a good match for those interested in developing data analysis skills, which are useful for a wide variety of analytically oriented professions.

Pre-reqs: Econ 310. Not open to students with credit for Econ 410.

This class is **not** available to those who are in the Economics Math Emphasis and/or Econ Honors track.

This course **has been approved** by the Wisconsin School of Business for students using the 310-Econometrics sequence for their business analytics requirement.

Econ 410: Introductory Econometrics

Professor Christopher McKelvey, 4 credits

Econ 410 is also an introductory econometrics course but takes a more theoretical and mathematical approach. The focus is on deriving estimators and evaluating the properties of these estimators. The problem sets make use of the statistical software STATA but place less emphasis on the application of statistical methods and a correspondingly greater emphasis on proofs. The topics covered are largely identical to those covered in Econ 400; it is the more mathematical treatment of these topics in Econ 410 that differentiates these two courses. This course is a good match for those interested in pursuing graduate school in economics.

Pre-reqs: Econ 310, and Math 217 or 221. Not open to students with credit for Econ 400.

This is *required* for those in the Economics Math Emphasis track and for those in the Economics Honors

Econ 441: Analytical Public Finance

Professor Rebecca Glawtschew, 3 credits

This is a course in applied microeconomics, focusing on the role of the government in the economy. This course will examine the reasons for governmental intervention in the economy, the extent of that intervention, and the response of private agents to such governmental actions. The course aims to provide students with an improved ability to think about the logic and consequences of public policies and interventions.

Pre-reqs: Econ 301 or 311

Econ 450: Wages and the Labor Market

Professor Chao Fu, 4 credits

Economics and institutional forces determining labor supply and demand; wages theories, wages in the economy, the labor force, unemployment, wages, labor mobility, functioning of labor markets. The object is to provide students with a detailed outline of the basics of labor economics. The course will also consider the importance for students to be aware of the simple facts of labor market in the US. Using the theory and facts, it should be possible to evaluate labor market policies and to form an informed view on current policy debates.

Pre-reqs: Econ 301 or 311

Econ 455: Behavioral Economics

Professor Gwyn Pauley, 4 credits

This course explores some of the systematic ways in which people fail to be perfectly rational; e.g. in succumbing to temptation, suffering from biases, failing to properly incorporate all available information when making decisions, forgetting things, or being influenced by the way a problem is framed. This class will look to the psychological and experimental literature for evidence of how real people behave, build simple models of this behavior, and then explore the economic and policy implications. This course is more theoretical than empirical and will assume familiarity with intermediate micro as well as basic calculus and probability. Students will complete a final capstone project based on what they have learned during the semester.

Pre-reqs: Econ 301 or 311; and Econ 310

Econ 458: Industrial Structure and Competitive Strategy

Professor Raymond Deneckere, 3 credits

This class analyzes competition among firms and its effect on industrial structure. Theoretical models and case studies are used, thereby challenging both analytical synthetic skills. Covered topics include: Entry barriers, price competition dynamics, entry and exit strategies, and competitive tactics such as product differentiation, advertising and technological change. The unique course framework has students working on projects in a team-oriented environment, in a manner reflective of many workplace environments. Grading will be based on case analyses, class participation, and a final research paper. This class size is designed to be small, so collaborative efforts are enforced. This is a great course for the entrepreneurially talented as well as those preparing for a career in consulting.

Pre-reqs: Econ 301 or 311

Econ 460: Economic Forecasting

Professor Anna Bykhovskaya, 3 credits

This is an introduction to econometric time series analysis, forecasting methods, and forecast evaluation. The course will cover theoretical and applied topics. Significant component of the class will be hands-on numerical analysis. The computer software Stata will be used for problem sets and the project. The primary textbook is *Forecasting in Economics, Business, Finance and Beyond* by Francis X Diebold. A supplemental required book is *The Signal and the Noise: Why So Many Predictions Fail – But Some Don't* by Nate Silver. Weekly problem sets will include both problem solving and computer tasks. Additionally, a major component of the course is an independent forecasting project. You will select an economic time series, build a model, make a one-year forecast, and evaluate the relative success of the first out-of-sample realization.

Pre-reqs: Econ 410 or concurrent enrollment. Econ 400 (completed) is acceptable, but with advisor permission

Econ 464: International Trade

Professor Maria Muniagurria, 4 credits

This class uses the contemporary theory of international trade. It focuses on what nation's trade and why they trade. This class will ask, "In what sense is international trade beneficial to trading countries?" And, "What effects of trade, tariffs, and international trade agreements do we see when looking at the welfare of impacted groups?" Current policy issues will be examined to demonstrate the usefulness and limitations of the theory. Throughout the semester there will be 6-7 homework assignments, exams, and short reports.

Pre-reqs: Econ 301/311

Econ 475: Economics of Growth

Professor Maria Muniagurria, 3 credits

This course studies models of economic growth and relate them to country experiences. Topics include growth and technology, education, natural resources, government policies, and population growth. Questions asked are: How does technological change affect growth? What impact does education have on growth? What is the role of institutions on determining income levels and economic growth? Expect weekly readings, homework, in-class discussions, and calculus!

Pre-reqs: Econ 301 or 311; Econ 302 or 312; and Math 217 or 221

Econ 503: Markets with Frictions

Professor Randall Wright, 3 credits

Search theory provides a framework for understanding markets and is used to study questions in monetary, public, and financial economics. This course will develop theoretical tools used to introduce frictions in formal models and will address the role of frictions in several applied scenarios.

Pre-reqs: Econ 301 or 311; Econ 302 or 312; and Math 222

Econ 521: Game Theory and Economic Analysis

Professor David Hansen, 4 credits

Game theory studies behavior in strategic situations, in which agents' payoffs depend on the choices of others as well as their own. The goal of this course is to introduce the main concepts and tools of game theoretic analysis, to examine thinking strategically in a mathematical modeling framework, and to make predictions regarding outcomes in strategic situations. Applications of game theory extend well beyond economics to political science, engineering, computer science, finance, biology, anthropology, sociology, and other fields. The course will analyze real-world situations using game-theoretic tools.

Pre-reqs: Econ 301 or 311; and Math 222

Econ 548: Economics of Healthcare

Professor Korinna Hansen, 3 credits

This is a course in applied microeconomics. It is designed for those who already understand basic consumer and producer theory, and focuses on how health care markets differ from other markets. Due to asymmetric information, uncertainty, government involvement, and externalities, the economics of the health care sector and its players (patients, providers, insurers, employers, and government) require a special analysis. You will learn how to apply microeconomic tools to study the medical care system and analyze the economic aspects of health care policy implications. In the process you will also learn the institutional structure of the US health care market. A large group paper/presentation requirement will provide experience on how to research and present academic material.

Pre-reqs: Econ 301 or 311

Econ 570 Data Analytics for Economists

Professor Kim Ruhl, 3 credits

This course teaches students the fundamentals of modern data analytics. These skills are needed to provide data-driven answers to relevant questions. Data analytics is a fundamental aspect of business management, academic research, and good governance. The course is taught using the python programming language, but programming is *not a prerequisite*. We will spend the first three weeks of class learning how to write python code. Following, the course focuses on cleaning and shaping data (a major challenge!), visualization, and statistical modeling. The course culminates in a group research project in which teams of students formulate a research question, find the appropriate data to analyze, and produce an executive report on their findings. Approximately half of the in-class time consists of students working on data programming problems: laptops are required. More details: <http://badgerdata.org/pages/econ-570/>

Pre-reqs: Econ 301 or 311, and Econ 310

****This is the same class as Econ690 Data Analytics taught previously; it just now has an official number! If you took Data Analytics with Kim Ruhl as Econ 690 previously, you cannot take Econ 570 now!**

Econ 580: Honors Tutorial in Research Project Design

Professor Ken West, 3 credits

This is a small, CommB course that results in students writing one publication level research paper on a topic of economic relevance under the close supervision of a faculty member. Students will present their papers for both peer review as well as for faculty review.

Pre-reqs: Initially open only to Honors students who have completed Econ 311, 312, and 410.

With advisor approval, remaining seats open to students with a minimum of 301 or 311; 302 or 312; and Econ 410. Concurrent enrollment in any of these classes is not allowed.

Econ 621: Markets and Models

Professor Dan Quint, 3 credits

An investigation into the various ways that markets determine the allocation of scarce resources: via a single market-clearing price, waiting in line or other forms of rationing, search, a centralized matching algorithm, an auction, or a contest. We will examine real-world examples of each type of market and introduce and solve a formal theoretical model of each to see what insights it leads to.

Preq-reqs: Econ 301 or 311, and Math 217, 221, or 275.

*This class is for students who are confident using multivariate calculus

*this is the same course as Econ690-002, Markets and Models, taught in Spring 2020. Simply the lecture number changed. You cannot take this same course if you already have credit for it.

Econ 623: Population Economics

Professor James Walker, 3 credits

The course will examine the economic determinants of population change and demographic behavior including immigration, migration, pandemics (!), aging, fertility/mortality, and revolutions! We will apply analytical tools of economics to investigate various economic and social consequences of population change; spoiler alert!, there are many consequences! For those of who you enjoy discussing modern events (such as, COVID-19, Affordable Care Act, Social Security, etc...) and analyzing their historical and current economic consequences, this class is perfect for you.

Pre-reqs: Econ 301. Econ 310 is currently listed as a pre-req but will not be enforced.

*For those who have some stats background you can get permission from an Econ Advisor to enroll.

Econ 661: Issues in International Macroeconomics

Professor Dmitry Mukhin, 3 credits

This course aims to deepen students' understanding of the macroeconomic interactions between countries around the world. Among the questions we are going to discuss are: What explains the dominant status of the dollar in the international trade and the global financial markets? What are the associated benefits and costs for the U.S.? Is the dollar likely to lose its dominant status in the future and which other currencies can replace it? What are the spillover effects of the U.S. monetary policy on other countries? Can they lead to "currency wars"? Do free floating exchange rates and/or capital controls insulate emerging countries like Argentina from these spillovers? What are the pros and cons of a single currency in Europe? How has it contributed to the Eurozone crisis of 2010-2014?

Pre-reqs: Econ 461, 310, and Math 217 or 221.

****Students with Econ 302 instead of Econ 461 can enroll as well, but with advisor permission**

Econ 690 (Lecture 002): Experimental Economics
Professor David Hansen, 3 credits

NEW

Experimental economics uses experimental methods to examine questions that are of interest to economists. This involves carrying out experiments in a laboratory setting or in the field. In this class, we will consider how to design experiments and understand their results. We will use principles from statistical models, survey design, game theory, understanding of incentives, and behavioral economics to allow us to understand answers to key questions about economic policy, development economics, learning in uncertain situations, behavior in markets, market design, auctions, finance, altruism and selfishness, bargaining, and many other topics, as well as the processes that produced these answers.

Pre-reqs: Econ 301 or 311; and Econ 310

Econ 690 (Lecture 003): Causal Effects in Policy
Professor Jesse Gregory, 3 credits

This course studies how researchers use data to estimate the causal effects of policies, focusing on methods that exploit experiments and natural experiments. Students will read and discuss published research papers on topics including education policy, environmental regulation, and local labor market policies. Problem sets, a replication project, and class participation constitute the class.

Pre-reqs: Econ 301 or 311, and Econ 400 or 410

Econ 695 (001): Econometrics and Machine Learning for Big Data
Professor Harold Chiang, 3 credits

NEW

This course introduces state-of-the-art econometric and statistical learning methods to analyse big and complex datasets. Topics include statistical learning, linear regression, classification, resampling methods, linear model selection and regularization, nonlinear model selection and regularization, tree-based methods, and support vector machines. The course will focus on both methodology and R programming (knowledge of R programming is not required). Each week we will have one synchronous lecture covering concepts in the methodology and a pre-recorded lecture on applications of the methodology with R-programming. Laptops are required. The course contains coding problem sets, an in-class midterm focusing on methodology and a group big data research project in which teams of students formulate a research question, find the appropriate big data to analyse, and produce a report on their findings.

Pre-reqs: Econ 301, and Econ 400 or 410.

Knowledge of linear/matrix algebra is recommended but not required. We will review the necessary matrix algebra concepts in the first few lectures.

Please note that our schedules will be very busy during this shortened enrollment time. Please use Starfish to schedule an appointment or email **one** advisor from Economics.

For questions pertaining to pre-requisites, enrollment difficulties, or other logistical inquiries should be sent to our general Econ Advise account, econadvise@ssc.wisc.edu.