Economics Fall 2021 Course Listing

Fall 2021 courses have now been released! We hope you take the time to read through this document thoroughly so you can effectively work with advisors and enroll yourself in classes best for you. UW-Madison is *planning* on hosting in-person classes for Fall 2021. Classrooms will be assigned by the Office of the Registrar in July.

This document covers our Fall elective options that are not always offered every semester. It is split into two elective sections. The first describes General Electives in Economics and the second being the Advanced Electives. Do not get these groupings mixed up. A mistake distinguishing between these two categories could cost you a whole semester. Remember, the Economics Department's 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. And as always, we are offering Economics 301, 302, and 310.

Credits for the listed classes below 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 Fall 2021 semester approaches.

Honors in the Major

Econ 311: Intermediate Microeconomic Theory- Advanced Treatment
Professor Raymond Deneckere, 3 credits

This course introduces the major analytical and theoretical tools necessary for advanced study in microeconomics. It will cover the same material as Economics 301 but more in depth and with more math! Students who LOVE calculus love this course. This course will be taught at an accelerated pace and is best for those that want to exercise their already excellent analytical skills. It is designed to bridge fundamental concepts learned in Econ 101 to specified fields. This class will be small, designed for active participation.
This class is **required** for those doing Honors in the Economics Major. Those with Honors in the Major will have priority enrollment. Anyone without an honors designation must get permission to enroll from the advisor.

> *Pre-reqs:* Econ 101 and 102, or Econ 111, and Math 222. Not open to those who already completed Econ301

General Electives in Economics

Econ 205: *Quantitative Tools for Economics*
Professor Rebecca Glawtschew, 3 Credits

The objective of this course is to refine the quantitative skills necessary to succeed in intermediate- and advanced-level economics courses. The principle focus will be on applying the skills acquired in previous math courses to the questions, models, and optimization problems that are common in economics. The secondary focus will be on developing strong analytical and problem-solving skills.

> *Pre-reqs:* Econ 101, 102, or Econ 111.
> Not open to those who have Econ 301/311, 302/312, or Math 217/221.

This class is an elementary level elective designed to supplement previous calculus courses, before going into intermediate theory courses (301/302). **Please recommend this course to your friends who are interested in Econ but could use a calculus-refresher after Math 211, before diving in 301/302/310!

Econ 305: Development of Economic Thought
Professor James Walker, 3 Credits

In this class, you will focus on the conceptual foundations of economics, such as the theories of value, distribution, and economic growth, as well as ethical dimensions of economics, particularly the pursuit of wealth. The primary objective of this course is to understand the texts within the life and times and especially the conceptual perspective of the authors. This class will be writing and reading focused- expect exams and a research essay- along with daily discussion.

> *Pre-reqs:* Econ 101 and 102, or Econ 111
> ***Students can be granted permission if they have completed Econ 101 OR 102

Econ 330: Money and Banking
Professor Steven Rick, 4 Credits

Students will study the fundamental concepts of financial markets and financial institutions and how those concepts apply to real world issues. The course will also focus on central banking and the conduct of monetary policy. International finance and its impact on the foreign exchange market will be analyzed. Students will be able to construct and evaluate economic models, their assumptions and conclusions to evaluate monetary theory. An aggregate demand and supply model will be constructed to analyze the transmission mechanisms of monetary policy. Students will acquire a diverse set of skills and strategies in mathematical reasoning/statistical and computational techniques/deductive logic/problem solving. Students will use mathematics, computational, and statistical techniques to analyze real world situations and policies. Students will then use economic analysis to critically evaluate public policy proposals. The course homework will be assigned weekly and can be found on the weekly class notes that will be emailed to the students.

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

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: 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 a number of 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 essay/reading assignments, group projects, and at least two presentations.

> *Pre-reqs:* Econ 101 and 102, or 111.

Econ 390- 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

Advanced Electives in Economics

Declared economics students must complete a minimum of **2 Advanced Economics Elective** (AE) courses on our UW Madison campus when pursuing the Standard Economics Track. Students doing the Math Emphasis Track must complete a minimum of **3 Advanced Economics Electives, in addition to Econ 410.**

Please ensure that you are using this list to determine what is an AE and *not* Course Search and Enroll I/A settings.

Econ 400: Introduction to Applied Econometrics
Professor Christopher McKelvey, 4 Credits

Econ 400 provides an introduction to 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.

Econ 410: Introductory Econometrics
Professor Mikkel Soelvsten, 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.

Econ 435: The Financial System
Professor Menzie Chinn, 3 Credits

This course will review monetary policy, including how the money supply is controlled and the role of the banking system. The course will then cover the principles of asset pricing, the role of collateral constraints, informational problems in banking, and how those factors induce feedback loops in the macroeconomy. A portion of the course will address the analysis and implications of financial regulation or non-regulation, especially in regard to the financial crisis of 2008. There will be four problem sets, multiple exams and a short term paper.

Pre-reqs: Econ 301/311 and 302/312, Econ 330

Econ 441: Analytical Public Finance
Professor Naoki Aizawa, 3 Credits
This is a course in applied microeconomics, focusing on the role of the government in the economy. This course will help students exercise an understanding of the reasons for government intervention in the economy, the extent of that intervention, and the response of private agents to the government's actions. Students will finish the course with a much greater ability to think about the logic and consequences of public policies.

Pre-reqs: Econ 301/311

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.

Pre-reqs: Econ 301/311 and Econ 310

Econ 461: International Macroeconomics
Professor Stella Chan, 3 Credits

This course studies the theories and policy issues in international finance, or open macroeconomics. Topics such as the workings of the foreign exchange markets, the determination of the exchange rates, the relationships between trade, income, and financial flows, and the effects of macroeconomic policy under fixed and flexible exchange rate regimes will be explored. Students will discuss the causes and consequences of currency and financial crises and learn about the European Monetary Union. Problem sets, data analysis exercises, and exams constitute the class.

Pre-reqs: 302/312. Not open to those who have completed Econ 464.

Econ 464: International Trade
Professor Maria Muniagurria, 3 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 or 311

Econ 467: International Industrial Organization
Professor Maria Muniagurria, 4 Credits

This course studies relationships between firms and international trade. Studying theoretical models, analyzing aggregate empirical evidence, and examining case studies will answer and lead toward in-class discussions and multiple homework assignments. Topics include: basic game theory, strategic trade policy, research and development, innovation and intellectual property rights, and many more! This course has a foundation in microeconomics and calculus will be used in the class, on homework assignments, and in exams.

> *Pre-reqs***:** Econ 301 or 311

Econ 468: Industrial Organization and Competitive Strategy
Professor Kenneth Hendricks, 3 Credits
This course centers around behavior in imperfectly competitive markets, and the implications of this behavior on anti-trust policy. Students will discuss many decision-making questions such as: how to set prices; whether to merge with a competitor; whether to enter a new market; whether to try to dissuade a potential competitor from entering their own market; whether to engage in advertising or research and development. Students will analyze related anti-trust cases, with the goal of illustrating how the theoretical models apply in the real world.

> *Pre-reqs:* Econ 301/311 and Math 217/221

Econ 475: Economics of Growth
Professor Simeon Alder, 3 Credits

Students will study models of economic growth and development. This class will study the transition from Malthusian stagnation to sustainable growth around the time of the industrial revolution and the equally important demographic transition in the late 1800s and early 1900s. Using the "Unified Growth Model" students will learn what economic forces can account for all the long-term trends and will be introduced to basic numerical methods for solving dynamic models. Using post World War II data, empirical tools will help identify the proximate causes of economic growth and provide explanations for the vast modern-day differences in economic welfare. In addition, students will use econometric methods to identify the fundamental causes of economic growth and development. Expect weekly readings, homework, an introduction to numerical optimization methods, and calculus! In-class discussions are a key component of the course and students are expected to participate actively.

> *Pre-reqs:* (Econ 301 or 311), (Econ 302 or 312), and (Math 217 or 221)

Econ 522: Law and Economics
Professor Daniel Quint, 4 Credits
An economic analysis of laws and legal systems, using microeconomic tools to study the incentives created by particular laws and the outcomes to which they will lead. Specific topics include property, contracts, torts, and criminal law. The class has regular homework assignments, multiple midterm exams, and a final. This is a very popular Advanced Elective that fills quickly every semester!

> *Pre-reqs:* Econ 301 or 311

Econ 530: Insuring Life's Risks: Health, Aging, and Policy
Professor Corina Mommaerts, 3 Credits

Students will study risks related to health and aging, rationales for social insurance programs to protect against these risks, and costs and benefits of these programs. Topics include health insurance, disability insurance, and Social Security and pension policy. Each topic will (1) review important economic theory, including behavior under uncertainty, adverse selection, and moral hazard, and (2) discuss empirical research that uses econometric techniques to test theories and evaluate social programs. Classes will be a combination of lecture format and large-group discussion/debate. Students will be assessed on four problem sets that focus on the economic theory, several 2-page critiques of reading assignments (journal articles), class participation, and a midterm and final exam. Graphs, algebra, econometrics, and some calculus should be expected!

> *Pre-reqs:* Econ 301 or 311 and Econ 310. Econ 400 or 410 recommended

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 301/311

Econ 661: Issues in International Macroeconomics
Professor Rishabh Kirpalani, 3 Credits

In this course, we will develop a set of tools to model open economies. Open economies are those in which residents can trade goods and assets with residents in other economies. This will allow us to study how the current account and balance of payments of a country is determined. We will also cover real and nominal exchange rates, sovereign debt crises, and currency unions. The main goal for the course is to be able to use the tools developed in class to analyze current events and understand topical macroeconomic policy issues such as current account/trade deficits, global imbalances, sovereign debt crises, and financial crises.

> Pre-reqs: (ECON 302 or 312), ECON 310, and (MATH 217 or 221)

Econ 695: Data Analysis and Big Data (newly improved for Fall2021!)
Professor Matt Friedman, 3 Credits

This course teaches students how to extract economically meaningful information from data on a scale beyond what basic data-processing software packages (Excel, Access, SPSS) are designed to handle. This will include hands-on training that will teach students to measure spatial distance between data points, group data by physical location, calculate spatial statistics, visually represent spatial data using maps, and analyze relationships between variables using clustering algorithms and spatial regression analysis. Students who successfully complete the course will be able to build a database and analyze it using several econometric methods, including regression analysis, supervised and unsupervised machine learning. In addition, the course will introduce students to spatial data analysis using Geographic Information Systems (GIS).

These skills will be taught through guided practice and weekly exercises to verify understanding. We will focus on practical applications using 'real-world' examples – getting hands on programming experience while answering policy relevant research questions. Students will be evaluated based upon their weekly participation completing these exercises. Additionally, a capstone group project that require students to work collaboratively to demonstrate their mastery of course topics, producing a research paper based on their own novel analysis.

This class is designed for those who have little or no programming background in Python. Students are expected to work at least six (6) hours per week outside of class to complete assignments and review learning enrichment materials.

> *Pre-reqs*: ECON 310, (STAT 240 and 340), or (STAT 303 and 333)