

# Economics (ECON)

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## **ECON 105. Elements of Economics. 3 Credits.**

Study of demand and supply, competitive and noncompetitive markets, concepts of national income, unemployment, inflation, money, and fiscal and monetary policies. This course cannot be substituted for ECON 201 and ECON 202.

## **ECON 189. Skills for Academic Success. 1 Credit.**

This course is designed to ease the transition for new students at NDSU. Students will learn skills and techniques used by successful college students. In addition to introducing the students to campus resources and governance, topics will include study techniques, time management, test taking, note taking, goal setting, wellness, stress management, and career orientation.

## **ECON 194. Individual Study. 1-3 Credits.**

## **ECON 196. Field Experience. 1-15 Credits.**

## **ECON 199. Special Topics. 1-5 Credits.**

## **ECON 201. Principles of Microeconomics. 3 Credits.**

Nature, method, and scope of economic analysis; economic scarcity, resources, specialization of labor; supply-demand analysis; production and cost analysis; product and resource market structures; distribution of income; international trade.

## **ECON 202. Principles of Macroeconomics. 3 Credits.**

Aggregate income and employment analysis; business cycles, unemployment, inflation and economic growth; fiscal policy; money and monetary policy; the U.S. economy and the world economy.

## **ECON 205. Market Values. 3 Credits.**

Fundamental to both business and economics is the creation of value in the marketplace. This course examines competing economic systems (capitalist vs socialist) and their ability to create value for society. The course engages modern texts in addition to classical texts from Adam Smith and Karl Marx. The role of entrepreneurs and business persons in contributing to a flourishing society will be emphasized. In addition to in class discussions, lectures and activities, you will be expected to participate in several experiences outside of the classroom.

## **ECON 211. Introduction to Computational Economics. 3 Credits.**

Data visualization and basic concepts of statistics and economics taught through the analysis of economic data using computer spreadsheets.

Prereq: One of the following: ECON 105, or ECON 201, or ECON 202.

## **ECON 291. Seminar. 1-3 Credits.**

## **ECON 292. Global Practicum: Study Abroad. 1-15 Credits.**

Pre-Arranged study at accredited foreign institutions (study abroad), domestic institutions (National Student Exchange) or on approved study abroad programs. Pre-requisite: Sophomore standing and prior approval by International Student and Study Abroad Services and major department. Graded 'P' or 'F' (Undergraduate), or 'S' or 'U' (Graduate).

## **ECON 294. Individual Study. 1-5 Credits.**

## **ECON 299. Special Topics. 1-5 Credits.**

## **ECON 324. Money and Banking. 3 Credits.**

Institutional and theoretical framework of the financial structure including the banking system, Federal Reserve, money markets, and international monetary systems. Prereq: ECON 201, ECON 202.

## **ECON 341. Intermediate Microeconomics. 3 Credits.**

Analysis of markets in terms of efficiency, resource use, and economic welfare. Prereq: ECON 201, ECON 202, MATH 144 (or MATH 165).

## **ECON 343. Intermediate Macroeconomics. 3 Credits.**

Analysis of national output, business cycles, inflation, unemployment rates, interest rates, exchange rates, impact of monetary and fiscal policies, and economic growth. Prereq: ECON 201, ECON 202.

## **ECON 356. History of Economic Thought. 3 Credits.**

Development of economic thought from philosophical foundations to the Neoclassical School. S Prereq: ECON 201, ECON 202, ENGL 120.

## **ECON 379. Global Seminar. 1-6 Credits.**

NDSU instructed experience or field study in a foreign country. Conducted in English for residence credit. Pre-requisite: Prior approval by International Student and Study Abroad Services and major department. May be repeated. Standard Grading.

## **ECON 391. Seminar. 1-3 Credits.**

## **ECON 392. Global Practicum: Study Abroad. 1-15 Credits.**

Pre-Arranged study at accredited foreign institutions (study abroad), domestic institutions (National Student Exchange) or on approved study abroad programs. Pre-requisite: Sophomore standing and prior approval by International Student and Study Abroad Services and major department. Graded 'P' or 'F' (Undergraduate), or 'S' or 'U' (Graduate).

**ECON 394. Individual Study. 1-3 Credits.**

**ECON 397. Cooperative Education. 1-4 Credits.**

**ECON 399. Special Topics. 1-5 Credits.**

**ECON 402. Economics of Entrepreneurship. 3 Credits.**

Study of the economic functions of entrepreneurs, how entrepreneurs increase market efficiency through bearing risk in ownership of resources, and how incentives affect and are affected by entrepreneurship and private enterprises operating in economic and political systems. Prereq: ECON 201 and ECON 202. {Also available for graduate credit - see ECON 602.}.

**ECON 410. Econometrics. 3 Credits.**

Introduction to estimation, hypothesis-testing techniques and econometric applications in economics, with emphasis on ordinary least squares regression analysis. Use of econometric software reinforces econometric theory and methods through applications to economic data. Prereq: ECON 341, STAT 330. {Also offered for graduate credit - see ECON 610.}.

**ECON 411. Computational Economics. 3 Credits.**

Economic computation for modeling, analysis, and data management, including an introduction of rudimentary elements of programming required for economic computation. Prereq: ECON 201 or ECON 202 and STAT 330 or STAT 367. {Also offered for graduate credit - see ECON 611.}.

**ECON 439. Mathematical Economics. 3 Credits.**

Master and advanced undergraduate level course in mathematical economics. Topics may include: linear models and matrix algebra, comparative statics, optimization, difference equations and differential equations. This course is designed to prepare students in the Agribusiness & Applied Economics MS and the International Agribusiness MS programs, along with Seniors in the Agribusiness, Agricultural Economics, and Economics BS programs for PhD-level economics courses. Prereq: ECON 341. {Also offered for graduate credit - see ECON 639.}.

**ECON 440. Game Theory and Strategy. 3 Credits.**

This course is an introduction to the economic theory of games: a set of tools used to analyze the interactions among strategic decision-makers. Recommended Prereq: ECON 341 or BUSN 487. Prereq: ECON 201, MATH 144 (or MATH 165), and STAT 330 (or STAT 367). {Also offered for graduate credit - see ECON 640.}.

**ECON 461. Economic Development. 3 Credits.**

Analysis of the main causes of economic development. Prereq: ECON 341 or BUSN 487. {Also offered for graduate credit - see ECON 661.}.

**ECON 465. Labor Economics. 3 Credits.**

Theoretical analysis and survey of empirical studies relating to labor markets, human capital formation, and nature and causes of unemployment. Prereq: ECON 341 or BUSN 487. {Also offered for graduate credit - see ECON 665.}.

**ECON 470. Public Economics. 3 Credits.**

The economics of the public sector, including: taxation, expenditure, public goods, externalities, and program evaluation. The course will be taught from both a traditional perspective and through the lens of political economics. Prereq: ECON 341 or BUSN 487. {Also offered for graduate credit - see ECON 670.}.

**ECON 472. International Trade. 3 Credits.**

Theories of international trade, payments, and foreign exchange markets. Prereq: ECON 341 or BUSN 487. {Also offered for graduate credit - see ECON 672.}.

**ECON 475. Health Economics. 3 Credits.**

Introduction to the application of economics to healthcare and medical care issues including demand and supply of healthcare, health insurance, health quality and safety, and the role of regulations within a healthcare system. Prereq: ECON 341. {Also offered for graduate credit - See ECON 675.}.

**ECON 476. Monetary Theory and Policy. 3 Credits.**

Analysis of relationships among money, credit, employment, price stability, and national monetary policy. Prereq: ECON 324 or ECON 343. {Also offered for graduate credit - see ECON 676.}.

**ECON 480. Industrial Organization. 3 Credits.**

Structural analysis of American industry in terms of the markets for business enterprise. Analysis of antitrust policy and its application to large corporations. Prereq: ECON 341 or BUSN 487. {Also offered for graduate credit - see ECON 680.}.

**ECON 481. Natural Resource Economics. 3 Credits.**

Application of economic tools to evaluate natural resource policies. Concepts such as property rights, non-market goods, resource allocation over time, externalities, open access, and public goods are discussed in an intermediate micro-economics and calculus-based format. Prereq: ECON 201.

**ECON 482. Environmental Economics. 3 Credits.**

Application of economic tools to evaluate environmental policies. Topics include cost benefit analysis, regulatory versus market pollution control approaches, environmental damage assessment, and green accounting. Prereq: ECON 341 or ECON 481 or BUSN 487. {Also offered for graduate credit - see ECON 682.}.

**ECON 491. Seminar. 1-5 Credits.****ECON 492. Global Practicum: Study Abroad. 1-15 Credits.**

Pre-Arranged study at accredited foreign institutions (study abroad), domestic institutions (National Student Exchange) or on approved study abroad programs. Pre-requisite: Sophomore standing and prior approval by International Student and Study Abroad Services and major department. Graded 'P' or 'F' (Undergraduate), or 'S' or 'U' (Graduate).

**ECON 494. Individual Study. 1-5 Credits.****ECON 496. Field Experience. 1-15 Credits.**

Field-oriented supervised learning activities outside the college classroom that include a preplanned assessment of the experience, registration during the term the experience is conducted, and post evaluation with the instructor. Departmental approval.

**ECON 499. Special Topics. 1-5 Credits.****ECON 602. Economics of Entrepreneurship. 3 Credits.**

Study of the economic functions of entrepreneurs, how entrepreneurs increase market efficiency through bearing risk in ownership of resources, and how incentives affect and are affected by entrepreneurship and private enterprises operating in economic and political systems. {Also available for undergraduate credit - see ECON 402.}.

**ECON 610. Econometrics. 3 Credits.**

Introduction to estimation, hypothesis-testing techniques and econometric applications in economics, with emphasis on ordinary least squares regression analysis. Use of econometric software reinforces econometric theory and methods through applications to economic data. {Also offered for undergraduate credit - see ECON 410.}.

**ECON 611. Computational Economics. 3 Credits.**

Economic computation for modeling, analysis, and data management, including an introduction of rudimentary elements of programming required for economic computation. {Also offered for undergraduate credit - see ECON 411.}.

**ECON 639. Mathematical Economics. 3 Credits.**

Master and advanced undergraduate level course in mathematical economics. Topics may include: linear models and matrix algebra, comparative statics, optimization, difference equations and differential equations. This course is designed to prepare students in the Agribusiness & Applied Economics MS and the International Agribusiness MS programs, along with Seniors in the Agribusiness, Agricultural Economics, and Economics BS programs for PhD-level economics courses. Prereq: Admission to the MS program in Agribusiness & Applied Economics, the MS program in International Agribusiness, or the PhD program in Applied Economics or permission by instructor. {Also offered for undergraduate credit - see ECON 439.}.

**ECON 640. Game Theory and Strategy. 3 Credits.**

This course is an introduction to the economic theory of games: a set of tools used to analyze the interactions among strategic decision-makers. {Also offered for undergraduate credit - see ECON 440.}.

**ECON 661. Economic Development. 3 Credits.**

Analysis of the main causes of economic development. {Also offered for undergraduate credit - see ECON 461.}.

**ECON 665. Labor Economics. 3 Credits.**

Theoretical analysis and survey of empirical studies relating to labor markets, human capital formation, and nature and causes of unemployment. {Also offered for undergraduate credit - see ECON 465.}.

**ECON 670. Public Economics. 3 Credits.**

The economics of the public sector, including: taxation, expenditure, public goods, externalities, and program evaluation. The course will be taught from both a traditional perspective and through the lens of political economics. {Also offered for undergraduate credit - see ECON 470.}.

**ECON 672. International Trade. 3 Credits.**

Theories of international trade, payments, and foreign exchange markets. {Also offered for undergraduate credit - see ECON 472.}.

**ECON 675. Health Economics. 3 Credits.**

Introduction to the application of economics to healthcare and medical care issues including demand and supply of healthcare, health insurance, health quality and safety, and the role of regulations within a healthcare system. {Also offered for undergraduate credit - See ECON 475.}.

**ECON 676. Monetary Theory and Policy. 3 Credits.**

Analysis of relationships among money, credit, employment, price stability, and national monetary policy. {Also offered for undergraduate credit - see ECON 476.}.

**ECON 680. Industrial Organization. 3 Credits.**

Structural analysis of American industry in terms of the markets for business enterprise. Analysis of antitrust policy and its application to large corporations. {Also offered for undergraduate credit - see ECON 480.}.

**ECON 681. Natural Resource Economics. 3 Credits.**

Application of economic tools to evaluate natural resource policies. Concepts such as property rights, non-market goods, resource allocation over time, externalities, open access, and public goods are discussed in an intermediate micro-economics and calculus-based format.

**ECON 682. Environmental Economics. 3 Credits.**

Application of economic tools to evaluate environmental policies. Topics include cost benefit analysis, regulatory versus market pollution control approaches, environmental damage assessment, and green accounting. {Also offered for undergraduate credit - see ECON 482.}.

**ECON 696. Special Topics. 1-5 Credits.**

**ECON 710. Advanced Econometrics. 3 Credits.**

Advanced econometric methods applied to time series and panel data analysis, limited dependent variable models, maximum likelihood estimation, systems estimation, and discrete choice models. Prereq: ECON 610.

**ECON 762. New Institutional Economics. 3 Credits.**

This course introduces theoretical and applied studies examining the role of formal and informal institutions that make economic interaction possible. Topics include property rights, contracts, transaction costs, informal norms, culture, and conventions.

**ECON 793. Individual Study/Tutorial. 1-5 Credits.**

**ECON 810. Econometrics I. 3 Credits.**

First course in Ph.D. core econometrics sequence. The focus of the course is foundational econometric theory as necessary for applied econometric analysis. Topics covered may include: matrix algebra approach to regression, inference, nonlinear regression, limited dependent variables, systems of equations, panel models, and time series models. Prereqs: ECON 639 and ECON 710.

**ECON 811. Econometrics II. 3 Credits.**

Second course in Ph.D. core econometrics sequence. The focus of the course is implementation of applied econometric analysis based on foundational econometric theory. Topics covered may include: methods of program evaluation, panel data methods, time series methods, machine learning methods. Prereq: ECON 810.

**ECON 841. Microeconomic Theory I. 3 Credits.**

First course in the PhD core microeconomics sequence. Topics include: consumption, production, demand, choice under uncertainty, general equilibrium, and welfare economics. Prereq: ECON 439 or ECON 639.

**ECON 842. Microeconomic Theory II. 3 Credits.**

Second course in the PhD core microeconomics sequence. Topics include: general equilibrium, game theory, information economics, and applications of game theory. Prereq: ECON 841 and ECON 439 or ECON 639.