# **ECONOMICS (ECON)**

Economics is the study of how societies organize themselves to produce goods and services and to distribute those products among the members of society. In the modern world, a combination of market forces, public policies, and social customs perform these basic economic tasks. Economists use concepts, models, and data to analyze efficiency of resource use, fairness of economic outcomes, and development of global and national economies. The economics programs are designed to introduce students to the tools of economic analysis and to show students how they can use those tools to analyze and better understand real-world situations.

Undergraduate training in economics is an excellent background for a variety of careers, including banking and financial services, journalism, international business, public service, the diplomatic corps, entrepreneurial ventures, and government administration. An undergraduate major in economics is also excellent preparation for those interested in graduate work in law, business administration, and international relations.

The department offers the choice of a B.A. degree in economics or a B.S. degree in analytical economics. The B.A. degree is designed to offer students maximum flexibility in designing a program of study. Students are encouraged to take a wide variety of courses, double major, and take advantage of study abroad programs. The B.S. degree differs from the B.A. degree in that it requires more quantitative and data analysis courses but does not require a foreign language. It provides more structure and direction than the B.A. degree and is more technically focused. Please see Economics programs for further information.

Courses in economics are open to non-majors on a space-available basis. An economics minor is also available, as students majoring in other programs have found that certain economics courses are useful supplements to their own majors and a help in gaining employment.

https://paulcollege.unh.edu/economics

## Programs

- · Analytical Economics Major (B.S.)
- Economics Major (B.A.)
- · Economics Major. Public Policy and Sustainability Option (B.A.)
- · Economics Minor

## Courses

# **Economics (ECON)**

ECON 401 - Principles of Economics (Macro)

Credits: 0 or 4

Basic functions of the United States economy viewed as a whole; policies designed to affect its performance. Economic scarcity, supply and demand, the causes of unemployment and inflation, the nature of money and monetary policy, the impact of government taxation and spending, the federal debt, and international money matters. ECON 401A emphasizes applications to the international economy. ECON 401H is open to students in the Honors Program.

Attributes: Social Science (Discovery)

Equivalent(s): ECON 401H

Mutual Exclusion: No credit for students who have taken ECN 411,

ECN 411W.

**Grade Mode:** Letter Grading

ECON 401H - Honors/Principles of Economics (Macro)

Credits: 4

Basic functions of the United States economy viewed as a whole; policies designed to affect its performance. Economic scarcity, supply and demand, the causes of unemployment and inflation, the nature of money and monetary policy, the impact of government taxation and spending, the federal debt, and international money matters. ECON 401A emphasizes applications to the international economy. ECON 401H is open to students in the Honors Program.

Attributes: Honors course; Social Science (Discovery); Inquiry (Discovery)

Equivalent(s): ECON 401

Mutual Exclusion: No credit for students who have taken ECN 411,

ECN 411W.

**Grade Mode:** Letter Grading

**ECON 402 - Principles of Economics (Micro)** 

Credits: 4

Functions of component units of the economy and their interrelations. Units of analysis are the individual consumer, the firm, and the industry. Theory of consumer demand and elasticity, supply and costs of production, theory of the firm under conditions of perfect and imperfect competition, demand for and allocation of economic resources, general equilibrium, and basic principles and institutions of international trade. ECON 402A emphasizes applications to the international economy. ECON 402H is open to students in the Honors Program.

Attributes: Social Science (Discovery)
Equivalent(s): ECON 402H, EREC 411, NR 411

Mutual Exclusion: No credit for students who have taken ECN 412,

FCN 412W

## ECON 402H - Honors/Principles of Economics (Micro)

Credits: 4

Functions of component units of the economy and their interrelations. Units of analysis are the individual consumer, the firm, and the industry. Theory of consumer demand and elasticity, supply and costs of production, theory of the firm under conditions of perfect and imperfect competition, demand for and allocation of economic resources, general equilibrium, and basic principles and institutions of international trade. ECON 402A emphasizes applications to the international economy.

ECON 402H is open to students in the Honors Program.

Attributes: Honors course; Social Science (Discovery); Inquiry

(Discovery); Writing Intensive Course **Equivalent(s)**: ECON 402, ECON 402A

Mutual Exclusion: No credit for students who have taken ECN 412,

ECN 412W, EREC 411, NR 411. **Grade Mode:** Letter Grading

### **ECON 501 - Business and Economic History**

Credits: 4

This course studies the historical influence of business enterprises on the global development of capitalist economies, their ancient and medieval predecessors, and their modern alternatives. Topics include the impact of climate and disease on economic growth, the rise of manufacturing, the development of financial institutions and markets, innovation and the role of the entrepreneur, the history of slavery and colonialism, and the impact of government policy on business development. Because this is an Inquiry course, each student will pursue a major research project. Does not satisfy Economics Minor requirements.

Attributes: Historical Perspectives(Disc); Inquiry (Discovery)

Grade Mode: Letter Grading

# ECON 565 - Predictive Modeling: Data Driven Economic Analysis Credits: 4

This course expands upon core topics in statistics through the study and practice of data management, data analysis, and statistical programming. Statistical programming and analytical skills are the key components of predictive modeling. Students will develop tools for collecting, organizing, interpreting, presenting, and analyzing business information. As an economics course an emphasis will be placed on how to use data to improve the information needed to make sound economic and business decisions based on marginal analysis.

**Prerequisite(s):** (ADMN 420 with a minimum grade of C- or ADMN 510 with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

**Grade Mode:** Letter Grading

# ECON 605 - Intermediate Microeconomic Analysis Credits: 4

Analysis of supply and demand. Determination of prices, production, and the distribution of income in noncompetitive situations and in the purely competitive model. General equilibrium.

**Prerequisite(s):** ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-.

Equivalent(s): ECON 605W

Mutual Exclusion: No credit for students who have taken ECON 606.

Grade Mode: Letter Grading

### ECON 606 - Intermediate Microeconomics with Calculus

Credits: 4

Consumer theory. Determination of prices, production, and the distribution of income in perfectly and imperfectly competitive markets. Demand and supply analysis. Welfare analysis of public policies. General Equilibrium. Topics employ calculus.

**Prerequisite(s):** (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-) and (MATH 424A with a minimum grade of D- or MATH 424B with a minimum grade of D- or MATH 425 with a minimum grade of D-).

Mutual Exclusion: No credit for students who have taken ECON 605.

**Grade Mode:** Letter Grading

### **ECON 611 - Intermediate Macroeconomic Analysis**

Credits: 4

Macroeconomic measurement, theory, and public policy determination. **Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

**Grade Mode:** Letter Grading

### **ECON 620 - Topics in Economics**

Credits: 4

Special topics cover a variety of areas in economics, often of special interest to the instructor.

**Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

Repeat Rule: May be repeated for a maximum of 16 credits.

**Grade Mode:** Letter Grading

### **ECON 620W - Topics in Economics**

Credits: 4

Special topics cover a variety of areas in economics, often of special interest to the instructor

Attributes: Writing Intensive Course

**Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C-).

Repeat Rule: May be repeated for a maximum of 16 credits.

**Grade Mode:** Letter Grading

### ECON 625 - Economic History of the United States

Credits: 4

This course studies the development of the U.S. economy from colonial times to the 21st century. The role that institutions, innovations and government policy play in economic development is a central theme of the course. Western settlement, slavery and abolition, the rise of manufacturing and the corporate business, emergence of affluence and consumer society, and the Great Depression are some of the topics addressed.

**Prerequisite(s):** ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C- or ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-.

Equivalent(s): ECON 515, ECON 515W

### **ECON 626 - Supervised Student Teaching**

Credits: 2-4

Participants are expected to perform such functions as leading discussion groups, assisting faculty in undergraduate courses that they have successfully completed. For juniors and seniors with 3.0 or better cumulative GPA. No more than four credits may be earned as a teaching assistant in any one course. Permission of instructor and undergraduate programs office required.

Repeat Rule: May be repeated for a maximum of 16 credits.

Grade Mode: Credit/Fail Grading

### **ECON 633 - Microfinance**

Credits: 4

Microfinance focuses on features of the informal economy in developing countries especially small-scale changes in finance, commerce, technology, and in social and environmental organization that have led to transformational economic breakthroughs. Besides financial services, the course examines innovative customer segments, market-based solutions, the role of government subsidies, a range of development issues, and how to measure success for projects, programs, and institutions.

Grade Mode: Letter Grading

### ECON 635 - Money and Banking

Credits: 4

Study of how the financial sectors of globally interconnected economies impact real economic activity. It includes interrelationships of interest rates, exchange rates, expectations, financial markets, financial institutions, central banks, systemic crises, the supply and demand for money and other financial instruments, and an introduction to monetary theory, policy and regulation.

**Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

**Grade Mode:** Letter Grading

### **ECON 645 - International Economics**

Credits: 4

Covers both international trade theory and open-economy macroeconomics. Some of the major issues include whether free trade is always preferred to restricted trade, the controversy over industrial policy and how best to structure the international financial system. Students gain an understanding of topics including currency exchange rate movements, and trade policy, among others.

**Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

Equivalent(s): ECON 645W Grade Mode: Letter Grading

### **ECON 652 - Economics of Artificial Intelligence**

Credits: 4

This course will provide students with a survey of economic models, applied to Artificial Intelligence (AI). The course is divided into three sections. In the first one, we introduce the concept of AI as a General-Purpose Technology that can improve prediction. In the second part, we look at how improved prediction can help decision-making under uncertainty. Finally, we analyze how AI can impact several aspects of business, society, and in particular the labor market.

Attributes: Writing Intensive Course

**Prerequisite(s):** ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C- or ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-.

**Grade Mode:** Letter Grading

### **ECON 653 - Law and Economics**

Credits: 4

Introduces the field of Law and Economics. Focuses on the legal system and the economic consequences of property, contract, tort, criminal law and mediation.

Attributes: Writing Intensive Course

**Prerequisite(s):** ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-.

Grade Mode: Letter Grading

### ECON 654 - Industrial Economics and Business Innovation

Credits: 4

This course will provide students with a survey of economic models in industrial organization, applied to innovation-related issues. The course is divided into three sections. In the first one, we introduce the concept of innovation, its measurement and how it is related to knowledge. In the second part, we look at innovation at the firm level. In particular, we delve into the "knowledge- creating" company and its strategies. Finally, we analyze the structure and evolution of several hi-tech industries, in terms of survival of existing firms and creation of new firms.

Attributes: Writing Intensive Course

**Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

**Grade Mode:** Letter Grading

# $\begin{tabular}{ll} ECON~655 - Innovation~in~the~Global~Economy\\ Credits: 4 \end{tabular}$

This course will provide students with a survey of economic models in international trade, applied to innovation-related issues. The course is divided into three sections. In the first one, we look at the role that industry, universities, and the government play in the national innovation system. In the second part, we look at innovation from an international perspective. In particular, we delve into the relationship between globalization and innovation. Finally, we analyze the role of externalities

in the knowledge economy and particularly network effects in the

diffusion of new technologies. **Attributes:** Writing Intensive Course

**Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

### **ECON 656 - Labor Economics**

#### Credits: 4

Functioning of labor markets from theoretical and policy perspectives. Labor demand and supply, wages and employment. Welfare programs, human capital, discrimination in the labor market, unions, wage differentials.

Prerequisite(s): (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-) and (ECON 605 with a minimum grade of C-).

Grade Mode: Letter Grading

### **ECON 676 - Economics of Sports**

#### Credits: 4

Focuses on the major economic aspects of North American professional and collegiate sports and special topics like the Olympics, discrimination, and tournament sports drawing from public finance, labor economics, and industrial organization.

Attributes: Writing Intensive Course

**Prerequisite(s):** ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-.

Grade Mode: Letter Grading

### **ECON 706 - Economics of Climate Change**

#### Credits: 4

Explores the economics and public policy of global climate change and develops the economic theory including the concepts of externalities, stock pullutant models, the social discount rate, and complicating factors such as information, uncertainty, technological progress, and risk. Students use economic analysis to compare different policy instruments such as administrative regulation, marketable permits, tax incentives, and direct subsidies. Also covers the political economy of international environmental agreements, including an analysis of the Kyoto Protocol.

Attributes: Writing Intensive Course

Prerequisite(s): ECON 402 with a minimum grade of D- or ECON 402H

with a minimum grade of D- or EREC 411 with a minimum grade of D- or

NR 411 with a minimum grade of D-.

# **Grade Mode:** Letter Grading **ECON 720 - Economic Problems**

### Credits: 4

Special topics cover a variety of areas in economics, often of special interest to the instructor.

**Prerequisite(s):** (ECON 401 with a minimum grade of C- or ECON 401H with a minimum grade of C-) and (ECON 402 with a minimum grade of C- or ECON 402H with a minimum grade of C- or EREC 411 with a minimum grade of C- or NR 411 with a minimum grade of C-).

Repeat Rule: May be repeated for a maximum of 16 credits.

Grade Mode: Letter Grading

### **ECON 720W - Economic Problems**

### Credits: 4

Special topics cover a variety of areas in economics, often of special interest to the instructor.

Attributes: Writing Intensive Course

Prerequisite(s): ECON 401 with a minimum grade of C- and ECON 402

with a minimum grade of C-.

Repeat Rule: May be repeated for a maximum of 16 credits.

Grade Mode: Letter Grading

### ECON 725 - Independent Study

Credits: 1-4

Individual research projects that are student designed. Initial sponsorship of a Paul College faculty member must be obtained followed by approval of Paul advisor and Dean's Office. Special permission required to earn more than 4 credits in one semester. For Paul College Juniors and Seniors with 3.0 or better cumulative GPA.

Repeat Rule: May be repeated for a maximum of 12 credits.

Grade Mode: Letter Grading

### ECON 725W - Independent Study

Credits: 1-4

Individual research projects that are student designed. Initial sponsorship of an economics faculty member must be obtained followed by approval of PAUL advisor and dean's office. Special permission required to earn more than 4 credits in one semester. For Paul College juniors and seniors in with 3.0 or better cumulative GPA.

Attributes: Writing Intensive Course

Equivalent(s): ECON 695W Grade Mode: Letter Grading

### **ECON 726 - Introduction to Econometrics**

Credits: 0 or 4

Introduces regression techniques as used in economics and management; estimation and statistical inference in the context of the general linear model; discussion of problems encountered and their solutions; extensions of the general linear model.

**Prerequisite(s):** (ADMN 420 with a minimum grade of C- or ADMN 510 with a minimum grade of C- or MATH 539 with a minimum grade of C- or BIOL 528 with a minimum grade of C- or EREC 525 with a minimum grade of C- or MATH 644 with a minimum grade of C-).

**Grade Mode:** Letter Grading

### **ECON 727 - Advanced Econometrics**

Credits: 4

Method of least squares estimation with treatments for hereogeneity and endogeneity. Method of maximum likelihood estimation. Binary choice models. Panel data models. Survival analysis. Topics employ calculus. **Prerequisite(s):** ECON 726 with a minimum grade of C- and (MATH 424A with a minimum grade of D- or MATH 424B with a minimum grade of D- or MATH 425 with a minimum grade of D-).

**Grade Mode:** Letter Grading **ECON 760 - Game Theory** 

### Credits: 4

Game theory is the study of strategic interactions. In order for a decision-maker to decide the best course of action, he must take into account the actions of others, including how his own behavior influences the thinking and payoffs of others. Game theory helps us develop an understanding of how people actually behave and how they should be advised to behave in strategic situations. Game theory models conflict and cooperation between rational decision-making agents and has applications in a wide variety of areas, including statistical decision theory, artificial intelligence, economics and business, biology, political science and philosophy.

**Prerequisite(s):** (ECON 605 with a minimum grade of C- or ECON 606 with a minimum grade of C- or ADMN 580 with a minimum grade of C-).

#### **ECON 774 - Senior Economics Seminar**

Credits: 4

Capstone experience for students enrolled in the Economics B.A. program. Topics and format of the class depends on the interests and expertise of the faculty member and students of the course. The course is organized around a "big" idea and focuses on an important topic that has broad interest and social consequences.

Attributes: Writing Intensive Course

Prerequisite(s): ECON 605 with a minimum grade of C- and ECON 611

with a minimum grade of C-. **Grade Mode:** Letter Grading

ECON 775 - Applied Research Skills for Economists

Credits: 4

Capstone course for students enrolled in B.S. in analytical economics. Students conduct economic research by bringing their understanding of economic theory and empirical/analytical skills to investigate contemporary economic problems, issues, and phenomena. Presentations are calculus-based. The topics and course design vary

depending on the instructor.

Attributes: Writing Intensive Course

Prerequisite(s): ECON 606 with a minimum grade of C- and ECON 611 with a minimum grade of C- and ECON 726 with a minimum grade of C-.

**Grade Mode:** Letter Grading

ECON 795 - Internship

Credits: 1-16

On-the-job skill development through fieldwork in an organization (business, industry, health, public service, etc.). Normally, supervision is provided by a qualified individual in the organization, with frequent consultation by a faculty sponsor. Written report required. Internships may be part or full time, with course credits assigned accordingly. May not be used as a major elective.

Grade Mode: Credit/Fail Grading

ECON 799 - Honors Thesis

Credits: 4-8

Supervised research leading to the completion of an honors thesis; required for graduation from the honors program in economics.

Attributes: Honors course; Writing Intensive Course

Grade Mode: Letter Grading

## Faculty

**Economics Department Faculty**