# **Economics**

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Economics is the science of choice in the face of scarcity and different consumption options. Limited resources, time, labor supply, energy, knowledge—such factors as these define the boundaries of possibilities and require human beings and societies to make choices. Economic theory is an attempt to capture the essence of that decision–making process, free of the details of particular situations.

Students in the economics major learn to use this theoretical foundation to analyze decision-making throughout society, from an individual's decision to purchase a car to a state's decision to raise or lower taxes. In the classic sense of a liberal arts education, students learn to use the tools of economics as a key to understanding the human experience and as a guide to individual, business, and societal action. This understanding of the forces underlying our economy—and, to a great degree, our society—provides a strong foundation for a range of professions and business careers. The economics major is a solid preparation for graduate studies in economics, business administration, finance, law, and public policy.

#### **NOTES**

- \* Students may use ECO 101 and BUS 323 to satisfy core requirements.
- \* Students may substitute MTH 210 (Calculus I) for ECO 208.

NOTE: To graduate with a Bachelor of Arts or Bachelor of Science degree from Lyon College, students must successfully complete a minimum of 120 semester credit hours comprised of our required Core curriculum, the requirements of at least one major (credit hours vary per major), and a selection of our Liberal Arts electives. They must also earn at least a 2.00 cumulative grade point average for all work taken at Lyon College and a 2.00 cumulative grade point average in their major, minor, and concentration.

# **Economics Degrees**

# Economics Major (BA)

### Summary of Requirements for a Major in Economics

Item #	Title	Credits
ECO 101	Principles of Economics I	3
ECO 102	Principles of Economics II	3
ACC 210	Financial Accounting	3
ACC 211	Managerial Accounting	3
ECO 208	Quantitative Methods in Business, Economics, and Decision	3
	Science	
BUS 323	Statistical Applications to Business Decision Making	3
ECO 301	Intermediate Macroeconomics	3
ECO 302	Intermediate Microeconomics	3
ECO 306	Econometrics	3
ECO 390	Money and Banking	3
	Economics Electives (12 credits)	12

#### **CORE CURRICULUM**

Item #	Title	Credits
	Core Curriculum Requirements (In addition to Major hours)	46-48
	Total Credits	88-90

# **Economics Electives (12 credits)**

Select four Economics courses at the 300 level or above to satisfy this requirement.

# Core Curriculum Requirements (In addition to Major hours) Developmental requirements (up to 6 credits):

Taken in the first semester, if placed into it:

• ENG ooi College English

Taken in the first year, if placed into it:

• MTH 001 Intermediate Algebra

# **Proficiency requirements (15 credits):**

Taken in the first two years, if not placed out of it:

- MTH 101 College Algebra or
- MTH 103 College Algebra w/Lab or
- MTH 105 Mathematics for Liberal Arts

Taken in the first year (depending on placement):

- ENG 101 English Composition I (taken immediately if placed into it or immediately following completion of ENG 001 with a grade of "C" or better)
- ENG 102 English Composition II (taken immediately following successful completion of ENG 101 with a grade of "C" or better)

Recommended but not required in the first year:

• First year of a foreign language

# Conversations common core requirements (10-11 credits):

Taken in the first year (or within one year of completing any pre-requisite coursework):

- COR 100 Year One
- COR 101 Strategies for College Success (if placed into it)

Beginning in the first semester, students take at least one Conversations course per term until completion of the common core:

- COR 120: Conversations: The American Experience
- COR 130: Conversations: Building the Modern World
- COR 140: Conversations: Imagining Lives through World Literature

# Fields of Inquiry requirements (21-22 credits)

Students may count no more than two courses from any given departmental listing toward their Field of Inquiry requirements.

#### Faith, Philosophy, and Self (3 credits)

Select from the following:

- ANT 202 Anthropology & Social Justice
- COR 110 Searching
- RPH 130 Intro to Christian Theology
- RPH 140 World Philosophy
- RPH 205 Intro to Ethics

#### **Historical Literacy (3 credits)**

Select from the following:

- ANT 120 Inequality in the Ancient World
- ANT 201 Borders & Boundaries
- ECO 430 History of Economic Thought
- HIS 101 United States I
- HIS 102 United States II
- HIS 110 World Civilization I

• HIS 280 - Historiography & Historical Method

#### **Human Diversity and Society (3 credits)**

#### Select from the following:

- ANT 101 Introduction to Cultural Anthropology
- ANT 140 Language & Culture
- ANT 210 Recipe for Humanity
- ECO 101 Principles of Economics
- POL 201 Comparative Politics
- POL 205 World Politics
- PSY 101 Introduction to Psychology

#### **Human Expression (3 credits)**

#### Select from the following:

- ART 201 World Art I
- ART 202 World Art II
- ENG 160 Introduction to Creative Writing
- MUS 105 Language of Music
- MUS 110 Music Theory
- THE 101 Introduction to Theatre

#### Physical Activity (2 credits)

#### Select from the following:

- OLP 120 Biking
- OLP 125 Disc Golf
- OLP126 Backpacking
- OLP 128 Rock Climbing
- PED 101 Physical Fitness
- PED 103 Volleyball & Table Tennis
- PED 108 Archery/Bowling
- PED 109 Beginner Tennis
- PED 110 Tennis & Badminton
- PED 111 Aerobic Dance
- PED 113 Body Shaping
- PED 114 Yoga
- PED 119 Basic Golf
- PED 120 Tai Chi Chih
- PED 122 Fundamentals of Dance
- PED 126 Backpacking
- PED 130 Varsity Sports

#### **Quantitative Reasoning (3-4 credits)**

Select from the following:

- BUS 323 Statistical Applications to Business Decision Making
- ECO 208 Quantitative Methods in Business, Economics, and Decision Making
- MTH 105 Math for Liberal Arts
- MTH 110 Elementary Functions
- MTH 115 Discrete Mathematics
- MTH 210 Calculus I
- POL 220 Introduction to Research Methods in Political Science
- PSY 235 Statistics for Behavioral Sciences

#### Scientific Reasoning (4 credits)

Select from the following:

- ANT 100 Biological Anthropology
- BIO 100 Biology in Context
- BIO 110 Principles of Biology I & lab
- BIO 240 Human Microbiology
- CHM 105 Introduction to Chemistry
- CHM 110 General Chemistry I
- PHY 210/241 General Physics I, Fundamentals of Physics Lab I
- PHY 211 General Physics I lab
- PHY 240/241 Fundamentals of Physics I, Fundamentals of Physics Lab I
- SCI 100 Physical Science

# **Skills requirements**

Students pick up "Skills" that are attached to courses across the catalog, ranging from first-year to senior course listings and spreading across majors and general education experiences, and also through co-curricular experiences. If a student enrolls in a course that lists more than one Skill, the student must choose only one Skill to report for the requirements. Students must demonstrate one experience with each of these "Skills" categories:

#### **Healthy Lifestyle**

Select one from the following:

- ANT 210 Recipe for Humanity
- COR 110 Searching
- MTH 105 Math for Liberal Arts
- PED 101 Physical Fitness
- PSY 290 Human Development

#### **Oral Communication**

#### Select one from the following:

- ANT 101 Intro to Anthropology
- ANT 120 Inequality in the Ancient World
- ANT 140 Language & Culture
- ANT 201 Borders & Boundaries
- ANT 202 Anthropology & Social Justice
- ART 334 Three-Dimensional Studio II
- ART 440 Advanced Studio Concepts
- BIO 308 Parasitology
- BIO 350 Microbiology
- BIO 360 Comparative Biology
- BIO 366 Histology
- BUS 206 Principles of Marketing
- CHM 220 Organic Chemistry II
- DSC 105 Introduction to Data Science
- EDU 202 Overview of Teaching
- ENG 160 Intro to Creative Writing
- HON 400 Honors Capstone
- HUM 375 Medical Humanities Capstone
- MTH 220 Calculus II
- PHY 390 Physics Seminar
- POL 210 Introduction to Legal Studies
- PSY 332 History and Systems of Psychology

#### **Problem-Solving**

#### Select one from the following:

- ART 110 Drawing Studio I
- ART 120 Two-Dimensional Design
- BIO 360 Comparative Biology
- BUS 206 Principles of Marketing
- BUS 330 Business Process Design
- CHM 110 General Chemistry I
- CHM 220 Organic Chemistry II
- CSC 100 Introduction to Programming with C++  $\,$
- CSC 105 Digital Humanities
- DSC 105 Introduction to Data Science
- EDU 335 Educating Diverse & Exceptional Learners
- ENG 291 British Literature II
- ENG 330 American Literature I
- ENG 331 American Literature II
- MTH 110 Elementary Functions
- MTH 330 Linear Algebra
- PSY 101 Introduction to Psychology
- PSY 235 Statistics for the Behavioral Sciences

#### **Economics Minor**

The economics minor is a course of study designed as a second field for students seeking an understanding of the tools of economic theory and their use in analyzing the decision–making process on both an individual and a societal level.

#### NOTES

- \* Students may use ECO 101 to satisfy core requirements.
- \* Students may substitute MTH 210 (Calculus I) for ECO 208.

#### Summary of Requirements for a Minor in Economics

Item #	Title	Credits
ECO 101	Principles of Economics I	3
ECO 102	Principles of Economics II	3
ECO 208	Quantitative Methods in Business, Economics, and Decision Science	3
BUS 323	Statistical Applications to Business Decision Making	3
	ECO 301 OR ECO 302	3
	Economics Electives (6 credits)	6
	Total Credits	21

# ECO 301 OR ECO 302

Item #	Title	Credits
ECO 301	Intermediate Macroeconomics	3
ECO 302	Intermediate Microeconomics	3

# **Economics Electives (6 credits)**

Select two Economics courses at the 300 level or above to satisfy this requirement.

# **Economics (ECO) Courses**

# ECO 101: Principles of Economics I

An introduction to economics with an emphasis on the fundamentals of economic principles and current economic policy issues. Topics include scarcity of resources, production and consumption, international trade, supply and demand, taxes, welfare state, poverty, income inequality, economic output of an economy, price level, inflation, unemployment, long-run determinants of economic growth, and financial systems.

#### Credits 3

#### **Prerequisites**

MTH 001 or MTH 101 or MTH 103

# ECO 102: Principles of Economics II

Continuation of ECO 101. Students will apply the demand and supply model to analyze the effects of market intervention and understand market efficiency and the consequences of market failure, explore different market

paradigms with analytical tools (microeconomics), review long-run determinants of economic growth and the role of monetary institutions in the economy (macroeconomics), and employ the aggregate demand and supply model to understand short-run economic fluctuations and the effectiveness of monetary and fiscal policy tools.

Credits 3

**Prerequisites** 

ECO 101

### ECO 208: Quantitative Methods in Business, Economics, and Decision Science

Development of essential mathematical tools for business, economics, and other decision sciences. Topics include applications of algebra and differential calculus, including optimization techniques.

Credits 3

**Prerequisites** 

MTH 101 or MTH 103

### ECO 215: Investment Portfolio Management

An introduction to stock and bond markets. Students will experience semester-long activities and manage an investment portfolio. Students may enroll in this course a maximum of three times, earning 3 credits. Graded on a pass/fail basis.

Credits 1

**Prerequisites** 

ECO 101 and ACC 211

#### ECO 301: Intermediate Macroeconomics

Focused study of macroeconomics. Topics include national income accounting, determinants of consumption and investment spending, international capital flows, financial asset holdings, long-run economic growth, business cycles, monetary and fiscal policy, and unemployment.

Credits 3

**Prerequisites** 

ECO 102 and either ECO 208 or MTH 210

#### ECO 302: Intermediate Microeconomics

Focused study of microeconomics with analytical investigation of consumer choice, production costs, and firm behavior, including critical examination of different market paradigms. Topics include choice under uncertainty, problems with asymmetric information, externalities, and the use of game theories in analyzing strategic behavior of firms.

Credits 3

**Prerequisites** 

ECO 102 and either ECO 208 or MTH 210

# ECO 305: Game Theory

Analysis of strategic social interactions with the tools of game theory. Fundamental concepts such as strong dominance, Nash equilibrium, mixed strategies, sub-game perfect equilibrium, and backward induction are covered. Emphasis is on applications in economics and business, including topics in industrial organization, as well as topics in political science.

Credits 3

**Prerequisites** 

#### ECO 306: Econometrics

This course introduces the student to the theory and basic empirical tools of econometrics. Applications of standard methods to data are emphasized: parameter estimation, hypothesis testing, and forecasting. In the context of Ordinary Least Squares, the focus is on violations of Classical Assumptions such as model misspecification, omitted variable bias, multicollinearity, serial correlation, and heteroscedasticity. Extensive use is made of hands-on work with data sets.

Credits 3

#### **Prerequisites**

ECO 102 and (BUS 323 or MTH 360) or instructor approval.

### ECO 320: Corporate Finance I

Study of the basic concepts and analytical tools necessary for financial decision making with emphasis on time and risk as determinants of present value, bond and stock valuation, capital budgeting, capital asset pricing model, cost of capital, and capital structure.

Credits 3

#### **Prerequisites**

ACC 211, and ECO 102

# ECO 330: Corporate Finance II

Continuation of ECO 320. Using the case method, computer simulations and spreadsheet applications, students will work individually and in teams to further their understanding of financial systems analysis.

Credits 3

#### **Prerequisites**

ECO 320

#### ECO 350: Business and Professional Ethics

Examination of professional responsibility with case studies of ethical issues in business and the professions. (Same as RPH 350).

Credits 3

# ECO 370: Political Economy of Public Issues

Discussion and research of current public debates and interests in which both governmental and economic forces and interests are joined. Students will present their research to the class and write a major paper.

Credits 3

#### **Prerequisites**

ECO 102 or consent from instructor. (Same as POL 370)

# ECO 382: Special Topics in Economics

Study of selected topics in economics. Prerequisites will vary.

Credits 1

### ECO 390: Money and Banking

Evolution of monetary and financial systems with integrated international aspects, including interest rates, financial markets and institutions, and monetary policy.

Credits 3

**Prerequisites** 

ECO 102

### ECO 401: Multinational Financial Management

An examination of financial management in an international setting. Includes analysis of exchange rate determination, exchange rate risk, international financial crises, macroeconomic and political country risk, as well as issues in corporate finance including cash flow, capital management, and international investment.

Credits 3

**Prerequisites** 

ECO 102

#### ECO 410: International Economics

The exploration of various theories of international trade and finance with emphasis on factors affecting trade and financial flows and the commercial and trade policy implications on these flows. Students will also examine exchange rate regimes, balance of payments, and the role of international institutions such as the World Trade Organization, the World Bank, and the International Monetary Fund.

Credits 3

**Prerequisites** 

ECO 102

#### ECO 420: Public Finance

An application of microeconomic theories analyzing the role of government in providing public goods and services to a predominantly market economy. Students will examine collective decision-making, types of taxes, local public finance, and government expenditure programs and tax systems with emphasis on their efficiency, equity, and incentive aspects.

Credits 3

**Prerequisites** 

ECO 102

#### ECO 425: Environmental Economics

Examination of the interactions between production and consumption and the natural environment. Students will use microeconomic theories of externalities and public goods to model environmental problems and efficient solutions and analyze command-and-control based solutions and market-based solutions. Students will also discuss current environmental policy issues and use analytical decision- making tools such as environmental risk analysis and benefit-cost analysis to evaluate environmental projects.

Credits 3

**Prerequisites** 

ECO 102

# ECO 430: History of Economic Thought

Study of the evolution of ideas central to economic theory and the development of currently accepted ideas.

#### Credits 3

### ECO 475: Investments

Application of finance tools to the valuation of different types of securities, such as stocks, bonds, and options with emphasis on how to combine these securities into portfolios that provide the best risk-return profile for a given investor.

Credits 3

#### **Prerequisites**

BUS 323, ECO 320, and either ECO 208 or MTH 210

# ECO 482: Special Topics in Economics

Study of selected topics in economics. Prerequisites will vary.

Credits 1

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