

● ECONOMICS ●

The purpose is to acquaint students with the economic aspects of modern society, to familiarize them with techniques for the analysis of contemporary economic problems, and to develop in them an ability to exercise judgement in evaluating public policy. The program offers rigorous training for the general students as well as for those who plan careers as economists.

The faculty represents a wide spectrum of interests and conducts research on a broad range of topics. Most fields of economics are covered, including alternative economic systems, comparative institutional analysis, econometrics, economic development and growth, economic history, industrial organization, international trade, labor economics, macroeconomics, microeconomics, money and banking, financial economics and engineering, law and economics, game and contracts theory, and public finance.

The undergraduate program consists of a single unified track. Its purpose is to teach students to think and write clearly about economic problems and policy issues, using statistical methods where appropriate and applying the basic tools and concepts of economic analysis.

○ Curriculum Chart ○

Classification Abbreviation : CC-Common Curriculum, UICE-UIC Elective, MB-Major Basic, MR-Major Requisite, ME-Major Elective

YR	CLS	COURSE CODE	COURSE TITLE	CR	LEC (LAB)
1	UICE	ECO1001	INTRODUCTION TO ECONOMICS	3	3(0)
2	MB	ECO1101	MATHEMATICS FOR ECONOMICS I	3	3(0)
	MB	ECO1103	PRINCIPLES OF MICROECONOMICS	3	3(0)
	MB	ECO1104	PRINCIPLES OF MACROECONOMICS	3	3(0)
	MB	ECO2101	MACROECONOMICS	3	3(0)
	MB	ECO2102	MICROECONOMICS	3	3(0)
	MB	STA1001	INTRODUCTION TO STATISTICS	3	3(0)
	ME	ECO1102	MATHEMATICS FOR ECONOMICS II	3	3(0)
	ME	ECO2103	INTRODUCTION TO ECONOMIC HISTORY	3	3(0)
	ME	STA2103	MATHEMATICAL STATISTICS I	3	3(0)
	ME	STA2105	STATISTICAL METHODOLOGY	3	3(0)
	ME	STA3109	MATHEMATICAL STATISTICS II	3	3(0)
3,4	ME	ECO2104	HISTORY OF ECONOMIC THOUGHTS I	3	3(0)
	ME	ECO2109	KOREAN ECONOMIC HISTORY □	3	3(0)

	ME	ECO3101	GAMES THEORY WITH APPLICATIONS	3	3(0)
	ME	ECO3102	BUSINESS CYCLE THEORY AND FORECASTING	3	3(0)
	ME	ECO3103	DEVELOPMENT AND GROWTH	3	3(0)
	ME	ECO3104	ECONOMETRICS I	3	3(0)
	ME	ECO3105	FINANCIAL ECONOMICS	3	3(0)
	ME	ECO3106	LABOR ECONOMICS	3	3(0)
	ME	ECO3107	AGRICULTURAL ECONOMICS	3	3(0)
	ME	ECO3108	MATHEMATICAL ECONOMICS	3	3(0)
	ME	ECO3109	RESOURCE AND ENVIRONMENTAL ECONOMICS	3	3(0)
	ME	ECO3110	PUBLIC FINANCE	3	3(0)
	ME	ECO3111	REGIONAL ECONOMICS	3	3(0)
	ME	ECO3112	KOREAN ECONOMY □	3	3(0)
	ME	ECO3113	POPULATION ECONOMICS	3	3(0)
	ME	ECO3114	WELFARE ECONOMICS	3	3(0)
	ME	ECO3115	PERSONNEL ECONOMICS	3	3(0)
	ME	ECO3116	ECONOMIC POLICY	3	3(0)
	ME	ECO3117	CONTEMPORARY ECONOMIC THEORY	3	3(0)
	ME	ECO3118	FINANCIAL RISK: MEASURE AND CONTROL	3	3(0)
	ME	ECO3119	INTRODUCTION TO FINANCIAL ENGINEERING	3	3(0)
	ME	ECO3120	INTRODUCTION TO FINANCIAL ENGINEERING II	3	3(0)
	ME	ECO3121	HISTORY OF ECONOMIC THOUGHTS II	3	3(0)
	ME	ECO3122	MATHEMATICS FOR FINANCE	3	3(0)
	ME	ECO3123	CONTRACTS AND ORGANIZATIONS	3	3(0)
3,4	ME	ECO3124	E-BUSINESS ECONOMICS	3	3(0)
	ME	ECO3127	LAW AND ECONOMICS	3	3(0)
	ME	ECO3128	FINANCIAL ECONOMETRICS	3	3(0)
	ME	ECO3130	INTERNATIONAL MONEY AND FINANCE	3	3(0)
	ME	ECO3131	INTERNATIONAL TRADE	3	3(0)
	ME	ECO3132	MODERN ECONOMIC HISTORY	3	3(0)
	ME	ECO3133	INDUSTRIAL ORGANIZATION	3	3(0)
	ME	ECO3134	MONEY AND BANKING	3	3(0)
	ME	ECO4102	ECONOMIC PLANNING	3	3(0)
	ME	ECO4103	ECONOMIC DYNAMICS	3	3(0)
	ME	ECO4104	ECONOMETRICS II	3	3(0)
	ME	ECO4105	MARXIAN POLITICAL ECONOMY	3	3(0)
	ME	ECO4107	COMPARATIVE ECONOMIC SYSTEMS	3	3(0)
	ME	ECO4108	SOCIAL SECURITY AND WELFARE POLICY	3	3(0)
	ME	ECO4110	PUBLIC AND POLITICAL ECONOMY	3	3(0)
	ME	ECO4111	EXPERIMENTAL AND BEHAVIORAL ECONOMICS	3	3(0)

	ME	ECO4862	ANALYSIS OF INTERNATIONAL FINANCIAL MARKET	3	3(0)
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denotes the course can be counted toward the as Korean Studies minor.

○ Major/Minor Requirements ○

.Major: 42 credit-hours required from among the Economics or Statistics courses listed below. The following seven courses (21 credits) are required: Introduction to Economics (This UIC Elective course is required for the Economics majors but is not counted toward the major credits), Principles of Microeconomics, Principles of Macroeconomics, Microeconomics, Macroeconomics, Mathematics for Economics I, Introduction to Statistics

.Double major: 36 credit-hours required. Double majors must also take the seven courses required for Economics majors.

.Minor: 18 credit-hours required. Principles of Microeconomics, Principles of Macroeconomics, and either Microeconomics or Macroeconomics are required to Economics minors. Economics minors also have to take Introduction to Economics from the UIC Electives though this course is not counted for major credits.

.All courses taught in English offered by the College of Economics can be counted toward Economics major credits.

.Economics majors can take a course taught in Korean and up to 4 courses(12credits) can be counted toward fulfilling the credit requirement for the major.

○ Course Descriptions ○

ECO1001 INTRODUCTION TO ECONOMICS

This course will deal with the nature and concepts of both microeconomics and macroeconomic. It will include several fundamental theories of economics as well as many case studies to enhance the understanding of students. Basically, this course will rely on lectures and students are encouraged to join discussions during class. This course will include at least one field trip and try to incorporate with special lectures

ECO1101 MATHEMATICS FOR ECONOMICS I

An introduction to mathematical techniques useful in the analysis of statistics, economics, and business.

ECO1102 MATHEMATICS FOR ECONOMICS II

This course covers the basic theories needed in understanding optimization theory including Kuhn-Tucker condition, maximization principle, and its application.

ECO1103 PRINCIPLES OF MICROECONOMICS

This course covers the basic theory and economic applications of the consumer, the firm, the market, and general equilibrium theory, and welfare economics.

ECO1104 PRINCIPLES OF MACROECONOMICS

This course covers, at the basic level, modern and classical theories of employment, national income, prices, and monetary and fiscal policy. Emphasis on interactions among the goods market and assets markets in the economy.

STA1001 INTRODUCTION TO STATISTICS

Basic ideas of probability and statistical distributions such as binomial distributions and normal distributions, two sample tests, chi-square test, simple regression, one way ANOVA, nonparametric tests, times series analysis and index numbers.

ECO2101 MACROECONOMICS

This course covers rigorously and analytically modern and classical theories of employment, national income, prices, and monetary and fiscal policy. Emphasis on interactions among the goods market and assets markets in the economy.

ECO2102 MICROECONOMICS

This course covers rigorously and analytically the theory of the consumer, the firm, the market, and general equilibrium theory and welfare economics.

ECO2103 INTRODUCTION TO ECONOMIC HISTORY

Evolution of the economy from ancient to modern times is examined. Emphasis is laid on the concepts and causes of economic change and changing economic organizations.

ECO2104 HISTORY OF ECONOMIC THOUGHTS I

Development of economic ideas and theories of various schools are examined. The evolutionary process of mainstream economics, possible alternatives, and their relevance to developing countries are analyzed.

ECO2109 KOREAN ECONOMIC HISTORY

Development of the Korean economy is examined in terms of economic systems, development states, and relationship with political-social phenomena.

STA2103 MATHEMATICAL STATISTICS I

This course covers discrete and continuous variables, transformations, expectations, general functions, limits theorems, estimation, confidence intervals, and hypothesis testing.

STA2105 STATISTICAL METHODOLOGY

Basic understanding of statistics theories: regression, distribution and data analysis using statistical packages.

ECO3101 GAMES THEORY WITH APPLICATIONS

Teaches basic concept of game and equilibrium, and their applications to various economic situations. Topics include moral hazard, adverse selection, auction and bidding, bargaining, signaling, collusion among firms, entry deterrence by incumbent monopolists, dynamic inconsistency of monetary and fiscal policies, etc.

ECO3102 BUSINESS CYCLE THEORY AND FORECASTING

General understanding of economic growth, inflation, stock market, international trade, and other phenomena related to economic fluctuations. Analysis of economic forecasting adjusted for trend effect and prediction based on realistic data.

ECO3103 DEVELOPMENT AND GROWTH

Primary factors contributing to the economic growth will be examined. Structural changes, income distribution, equity problems, industry growth strategy, self-sustaining economies, and other wide-scope of topics will be covered.

ECO3104 ECONOMETRICS I

The first semester deals with economic theories such as regression analysis, multicollinearity, auto correlations, and identification.

ECO3105 FINANCIAL ECONOMICS

The theory and actual practices of investor's decisions, financial organization's management, and financial supervisory board's role will be covered. Financial policies and their effectiveness will be explored.

ECO3106 LABOR ECONOMICS

The economic aspects of the problems, insecurities, and institutional developments associated with labor and labor market are discussed.

ECO3107 AGRICULTURAL ECONOMICS

Application of the principles of general economics, with special attention to how these principles work out in Korean agriculture.

ECO3108 MATHEMATICAL ECONOMICS

This course covers basic real analysis and topology, static optimization, dynamic optimization, methods of comparative static analysis, and dynamic stability analysis. (Prerequisite: Mathematics for Economics I)

ECO3109 RESOURCE AND ENVIRONMENTAL ECONOMICS

This course deals with the dynamic optimal use of natural resources and various ways to solve environmental problems.

ECO3110 PUBLIC FINANCE

This course covers market failure, the welfare aspects of collective choice, externality, public expenditure and taxation.

ECO3111 REGIONAL ECONOMICS

This course covers the theory of regional allocation of resources, examination of factors influencing industrial location and city location, and analysis of problems associated with urbanization.

ECO3112 KOREAN ECONOMY

This course deals with the structure and policies of the Korean economy, and attempts to cover all important areas, such as growth, inflation, monetary markets, and international payments.

ECO3113 POPULATION ECONOMICS

This course teaches various aspects of population as a main source of labor power. Topics include the determinant of population size and its composition, as well as their implications to economic growth and development.

ECO3114 WELFARE ECONOMICS

The fundamental theorems of welfare economics, based on the general equilibrium theory and the social choice theory are introduced. The problems of externality, public goods, property rights, and transaction cost are also analyzed.

ECO3115 PERSONNEL ECONOMICS

Employment, investment, accumulation of human resources, compensation system, separation and termination of employment, and other human resources related issues will be analyzed. Corporation's optimization behaviors under the conditions of uncertainty and information asymmetry will be discussed. Microeconomic models and simple case studies will be used as methods of analysis.

ECO3116 ECONOMIC POLICY

Major targets and instruments of economic policy are examined with special reference to Korean economic policy.

ECO3117 CONTEMPORARY ECONOMIC THEORY

This course aims to teach students recent developments in economic theories and their applications.

ECO3118 FINANCIAL RISK: MEASURE AND CONTROL

Explains the significant role risk management plays in financial organizations and corporation's management. The issues related to measurement methodology, systems program administration, and policy formations will be discussed.

The problems, limitations, and improvement of risk management will be explored.

ECO3119 INTRODUCTION TO FINANCIAL ENGINEERING

The creation of a new form of financial instrument, creation of a new procedure in the treatment of financial instruments, and innovation of existing financial products are some of the topics that will be covered. Currently financial engineering is the primary contributing factor in loosening of government regulations, liberalization of interest rates, and increased financial risk. Ability to apply these techniques is necessary in the advancement of the financial industry sector. Pricing of products, derived from stocks, bonds, and other basic financial instruments such as futures, options, swaps, and other derivatives and their decomposition and re-combination capabilities will be discussed.

ECO3120 INTERMEDIATE FINANCIAL ENGINEERING

Various theories of financial engineering as it relates to futures, options, swaps, and other derivatives. Numerical Techniques will be introduced in pricing of derivatives. Computer programming will be used in determining the price of derivatives in order to enhance the understanding of the topic.

ECO3121 HISTORY OF ECONOMIC THOUGHTS II

Development of economic ideas and theories of various schools are examined. The evolutionary process of mainstream economics, possible alternatives, and their relevance to developing countries are analyzed.

ECO3122 MATHEMATICS FOR FINANCE

By utilizing the mathematical foundation laid in the determination of derivative pricing and risk management, the course will lecture on the risk-neutrality probability, Martingale, Ito's Lemma, etc.

ECO3123 CONTRACTS AND ORGANIZATION

Course covers contract theory, organization structure, auction, and other fields of microeconomic application. Understanding of mathematical models and basic understanding of microeconomic theories are used as the basis.

ECO3124 E-BUSINESS ECONOMICS

Basic framework of e-businesses and its impact on the direction of the new economy will be discussed. By analyzing the various case studies, one can understand the necessary elements required in sustaining organizational growth within a consumer-focused market and promoting innovations.

ECO3127 LAW AND ECONOMICS

Application of law analyzed for the purpose of evaluating the economic efficiency of law and in order to understand the current social conditions.

ECO3128 FINANCIAL ECONOMETRICS

Topics include GMM, ARCH model, unit root, cointegration.

ECO3130 INTERNATIONAL FINANCE

Basic nature and role of money in the economy. Topics include the theory of supply and demand for money, the influence of money on economic activity, and related issues of monetary management.

ECO3131 INTERNATIONAL TRADE

Comparative costs, trade patterns, gains from trade, equilibrium of an open economy, tariffs, terms of trade, customs union, domestic distortion and optimum intervention.

ECO3132 MODERN ECONOMIC HISTORY

Examines the industrialization process of current major industrial countries and issues of modern economic development such as labor movements, international economic relations, and the great depression.

ECO3133 INDUSTRIAL ORGANIZATION

Theoretical and empirical analysis of the interaction among market structure, behavior, and performance.

ECO3134 MONEY, BANKING AND FINANCE

Basic nature and role of money in the economy. Topics include the theory of supply and demand for money, the influence of money on economic activity, and related issues of monetary management.

STA3109 MATHEMATICAL STATISTICS II

Theory of statistical inference, including the general decision problem; Neyman-Pearson theory of testing hypotheses; the monotone likelihood ratio property; unbiasedness, efficiency, and other small sample properties of estimators, especially maximum likelihood estimators; and general sequential procedures.

ECO4102 ECONOMIC PLANNING

This course covers the need for planning, the derivation of planning objectives, economic modeling, planning optimization, cost-benefit analysis, and practices of economic planning.

ECO4103 ECONOMIC DYNAMICS

Study of dynamic economic processes over time, focusing on inflation, business cycles, and long-term economic growth.

ECO4104 ECONOMETRICS II

Deals with applied econometrics of micro- and macroeconomics.

ECO4105 MARXIAN POLITICAL ECONOMY

Discusses Karl Marx's and Marxian economic theories.

ECO4107 COMPARATIVE ECONOMIC SYSTEMS

Historical and theoretical treatment of economic systems such as capitalistic economy and varieties of socialist economies; emphasis on comparison and prospects for these systems.

ECO4108 SOCIAL SECURITY AND WELFARE POLICY

Theories on unequal income distribution and poverty, social insurance, and government income-maintenance programs as policy instruments to correct the social problems are examined.

ECO4110 POLITICAL ECONOMY

Analysis of political economy and policy decisions in terms of economic strategy and information, and applying the concepts to the current economy. Topics include: election strategies, politics by proxy, political party's strategy and its policy decisions, collectivism, special interest groups, political economy of taxation, national debt, social security, income re-distribution resulting from elections, reciprocal relationships in economic growth, policy of fixed currency system, economic fluctuations related to politics, democracy and fair distribution of income, law and economy. (Prerequisite: Introduction to Microeconomics)

ECO4111 EXPERIMENTAL AND BEHAVIORAL ECONOMICS

Economic decisions and strategies associated with the typical human behaviors researched in the field of psychology and social psychology such as cognition, learning, reasoning are taught in order to enhance the explanation and prediction capabilities. Concepts such as loss aversion, fairness, framing, endowment effect, limited cognitive ability, limited memory, heuristics will be introduced. Application of such concepts will be analyzed in relations to stock market investor behaviors, realization and maintenance of the public welfare systems, consumer behaviors and marketing strategies, wage corrections, labor-management relationships, and game theories, etc. (Prerequisite: Introduction to Microeconomics)

ECO4862 ANALYSIS OF INTERNATIONAL FINANCIAL MARKET

This introductory course is intended primarily for students majoring(or minoring) in economics and/or business who would like to have basic and systemic understanding of international financial markets.