

Master of Science in Economics

Program code: 103010

INTRODUCTION

The Department of Economics (College of Business Administration) offers a Master's degree in **Economics**. The program accepts both Economics and non-Economics undergraduate degree holders. The main specific objectives for this program are: to promote excellence in policy economics education and research within the Economics Department; Also, to offer a rigorous program which is highly integrative, incorporating global and ethical dimensions, and developing the required technical, leadership and interpersonal skills contributing to professional success. The program offers both thesis and non-thesis options.

According to the University Council decision dated 4/2/2007, Thesis students admitted with effect from September 2007 are exempted from the comprehensive examination.

PROGRAM REQUIREMENTS

39 (33) TOTAL COURSE CREDITS (non-thesis option in parenthesis)

18 (18) COMPULSORY COURSES* (3 credits each)

1030-531	Microeconomics I	Equivalent to 1030-500
1030-532	Microeconomics II	Equivalent to 1030-502
1030-541	Macroeconomics I	Equivalent to 1030-501
1030-542	Macroeconomics II	Equivalent to 1030-503
1030-551	Mathematics and Statistics for Economics	
1030-552	Econometrics	Equivalent to 1030-504

12 (12) ELECTIVE COURSES* (3 credits each)

-The student chooses 4 elective courses 3 credit per course for a total of 12 credits whether in thesis or project tract.

1030-510	International Trade Theory	
1030-511	International Finance and Open Macroeconomy	
1030-512	Economics of Financial Markets	
1030-516	Energy Economics	Equivalent to 1030-514
1030-517	Urban Economics	
1030-518	Public Economics	Equivalent to 1030-513
1030-519	Industrial Organization	Equivalent to 1030-515
1030-520	Applied Econometrics	
1030-521	Special Topics in Economic Policy	
1030-522	Special Topics in the Kuwaiti Economy	
1030-524	Labor Economics	
1030-525	Development Economics	

1030-526 Special Topics in Economics
1030-527 Environmental and Natural Resource Economics **Equivalent to 1030-523**

*** NOTE:**

-With the approval of the Program Committee, students may substitute up to 3 credits hours with graduate courses from other graduate programs at Kuwait University.

9 (3) COMPULSORY COURSES

1030-593	Project (non-thesis option)	(3)
1030-597	Thesis	(0)
1030-598	Thesis	(0)
2000-599	Thesis	(9)

COURSE DESCRIPTION

1030-510: INTERNATIONAL TRADE THEORY
CR: 3 PR:1030-531, 1030-541

The Ricardian model of comparative advantage. The specific factor model of trade. The Hecksher-Ohlin model of trade. The standard trade model trade model. Economies of scale and international trade. Imperfect competition and international trade. Instruments of trade policy. Topics on the political economy of trade.

1030-511: INTERNATIONAL FINANCE AND OPEN MACROECONOMY
CR: 3 PR:1030-531, 1030-541

Basics of balance of payments. Traditional (Mundell-Fleming) approaches to exchange rates and balance of payments. Modern approaches to exchange rates and balance of payments. Fiscal, monetary, and exchange rate policies under different degrees of capital and labor mobility. Topics on international transmission of business cycles. Topics on the international monetary system. Empirical studies on macroeconomic interdependence and exchange rates.

1030-512: ECONOMICS OF FINANCIAL MARKETS
CR: 3 PR:1030-531, 1030-541

Part I: Finance Theory

The notions of risk and return in equity markets in the context of asset pricing and in the management of equity portfolios. Expected utility theory and the capital asset pricing model. Arbitrage pricing theory and options pricing and dynamic hedging strategies.

Part II: Monetary Theory

Money supply and the multiple deposit creation process. Money demand, from the Fisher quantity theory, to the Keynesian liquidity preference, to the modern quantity theory. The role of expectations in stabilization policy. Money and inflation. Macroeconomic policy in the international economy.

1030-516: ENERGY ECONOMICS
CR: 3 PR:1030-531, 1030-541

Theoretical microeconomic foundation of energy markets: supply and demand, efficiency, market power, and externalities, as well as the economic, technological, and geopolitical forces shaping markets of renewable and non-renewable energy. Interaction with the macroeconomy and related sectors such as electricity, transportation,

manufacturing, and real estate. Analysis of regulations and policies related to energy transition, the environment, and climate change. Topics related to Kuwait and the MENA region such as investment in oil and gas production, transition to renewable energy, OPEC, political economy, economic diversification, and labor markets. Reading and discussing case studies, economic reports, policy papers, and empirical journal articles.

1030-517: URBAN ECONOMICS
CR: 3 PR:1030-531, 1030-541

The economic explanations and consequences of cities, relying on the theoretical microeconomic foundation via the standard and quantitative urban models and their extensions. Topics include scale and agglomeration economies, urban development by market forces vs. planning, housing, land use, transportation, urban amenities, household and firm location choice, urban quality of life, social capital, market failures, and urban planning and governance policies. Topics related to Kuwait and the MENA region such as oil-driven urban development, political economy of real estate, migration, spatial segregation, urban sprawl, housing affordability, and urban governance. Reading and discussing case studies, economic reports, policy papers, and empirical journal articles.

1030-518: PUBLIC ECONOMICS
CR: 3 PR:1030-531, 1030-541

Theoretical foundation of market failures due to public goods and externalities and their implications on welfare; public expenditure and taxation theory; efficiency and equity implications of government interventions through provision of public goods, regulation of private goods, and taxation; institutions, political economy, and public choice; income redistribution, social safety nets, social programs and insurance (education, healthcare, social security, etc.); cost-benefit analysis of public expenditures; forms of taxation (labor, consumption, income, corporate, etc.). Topics related to Kuwait and the MENA region such as infrastructure, social programs (e.g., education, healthcare, housing, etc.), social security, immigration, municipal services, government wage bill and subsidies, unemployment and disability insurance,

privatization, public institutions. Reading and discussing relevant case studies, economic reports, policy papers, and empirical journal articles.

1030-519: INDUSTRIAL ORGANIZATION

CR: 3 PR:1030-531, 1030-541

The determinants and consequences of imperfectly competitive markets, and the government's role in influencing firm behavior, market structure, and efficiency. Topics include market power and concentration, natural monopoly, standard and strategic models of static and dynamic oligopoly, collusion and cartels, mergers and vertical integration, anti-competitive practices, regulation, technological innovation and diffusion, product differentiation, and strategic managerial decisions regarding production, pricing, quality, advertising, contracts, bargaining, and bidding. The course balances between theory and applications, including to relevant markets in Kuwait and the MENA region. Reading and discussing case studies, economic reports, policy papers, and empirical journal articles.

1030-520: APPLIED ECONOMETRICS

CR: 3 PR:1030-531, 1030-541, 1030-552

Econometric models of demand functions: Structural and time series approaches. Topics on causality and simultaneity. Modeling interrelated demands for factors of production, translog functions. Parameter estimation in structural and reduced form equations of macroeconometric Models. Econometrics of the labour markets: Applications of limited dependent variables procedures.

1030-521: SPECIAL TOPICS IN ECONOMIC POLICY

CR: 3 PR:1030-531, 1030-541

The rationale behind the design of macroeconomic policies. Topics on the regulatory framework of the financial sector. Topics on trade policy, integration and regional relations in the Gulf region. Topics on social policies in the Arab World. Structural adjustment and economic reform policies, with a focus on the Arab World.

1030-522: SPECIAL TOPICS IN THE KUWAITI ECONOMY

CR: 3 PR:1030-531, 1030-541

The structure of the Kuwaiti economy. Features of monetary and fiscal policies in Kuwait. International influences on the Kuwaiti economic growth and development paths. Structural problems in the Kuwaiti economy. Structural adjustment and economic reform attempts in Kuwait. The Kuwaiti economy and regional integration.

1030-524: LABOR ECONOMICS

CR: 3 PR:1030-531, 1030-541

Demand and supply in the competitive labor markets. Demand and supply in non-competitive labor markets. Topics on institutional factors that affect market operations. Topics on internal labor markets. The exit voice model of trade unions. Topics on discrimination in the labor markets. The Labor market in Kuwait

1030-525: DEVELOPMENT ECONOMICS

CR: 3 PR:1030-531, 1030-541

Models of growth, from Solow to the new growth theory. Topics on population human resources and labor markets with a focus on the Arab World. The agricultural sector in the Arab World. Topics trade policies and development .Topics on poverty an income distribution, with a focus on the Arab World. Topics on the role of the public sector in development. The environment and development.

1030-526: SPECIAL TOPICS IN ECONOMICS

CR: 3 PR:1030-531, 1030-541

The tutor chooses the topics that he/she will teach for the semester. Topics should be different from those included in elective courses.

1030-527: ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

CR: 3 PR:1030-531, 1030-541

Theoretical foundation of the economics of the environment and natural resources. Valuation of environmental amenities and natural resources. Market- and nonmarket-based interventions to address environmental quality degradation, climate change, and market failures related to public goods and externalities. Application of dynamic optimization with finite and infinite horizons to renewable (land, water, fisheries, etc.) and non-renewable (fossil-based energy, minerals, etc.) natural resources and their environmental implications. Topics related to Kuwait and the MENA region covering issues of oil and gas, water, agriculture, fisheries, and environmental policy. Reading and discussing case studies, economic reports, policy papers, and empirical journal articles.

1030-531: MICROECONOMICS I

CR: 3 Co: 1030-551

The first of the two-course sequence in microeconomic theory. Theory of the consumer: preferences, budget constraints, utility functions, and consumer and market demand. Theory of the firm: production technology, cost minimization, profit maximization, and firm and market supply. Analysis of general equilibrium, welfare and efficiency, and government interventions in

perfectly and imperfectly competitive markets. Preview of market structures, market failure, and decision-making under uncertainty. Intuition is built through graphical analysis, but analytical skills are developed using mathematical and calculus tools through lectures, analytical homework, and exams.

1030-532: MICROECONOMICS II

CR: 3 PR: 1030-531

The second of the two-course sequence in microeconomic theory, applying tools of game theory to the analysis of imperfect markets, strategic behavior, and non-standard allocation mechanisms. Market power, market failure (public goods and externalities), and asymmetric information (adverse selection, moral hazard, principal-agent problems, screening, and signaling), and corrective policy interventions. Factor inputs under different market structures, risk, and uncertainty. Survey of allocation mechanisms with few buyers and sellers (auctions, bargaining, voting, and matching) where conflicts between individual and social welfare arise, social choice theory, and mechanism design. Mastery of course concepts is achieved through lectures, analytical homework, exams, and reading empirical journal articles related to course topics.

1030-541: MACROECONOMICS I

CR: 3 Co: 1030-551

The first of the two-course sequence in macroeconomic theory, starting with an introduction to measurement of aggregate variables and main macroeconomic relationships. Theoretical concepts in static settings, focusing on classical and Keynesian theory, the IS-LM model, the aggregate demand and aggregate supply model, sticky prices, the Phillips curve, and fiscal and monetary policy. Preview of asymmetric macroeconomics through the Solow growth model. Intuition is built through graphical analysis, but analytical skills are developed using mathematical and calculus tools through lectures, analytical homework, and exams.

1030-542: MACROECONOMICS II

CR: 3 PR: 1030-541

The second of a two-course sequence in macroeconomic theory, with a dynamic and micro-founded approach to modeling macroeconomic phenomena. Solow growth model and its extensions; micro-founded dynamic models such as infinite horizon, overlapping generations, business cycle, and new Keynesian DSGE. Emphasis is placed on fiscal and monetary policy applications. Topics on open economy, international trade and finance, labor markets, and financial markets are also surveyed. Mastery of course concepts is

achieved through lectures, analytical homework, exams, and reading empirical journal articles related to course topics.

1030-551: MATHEMATICS AND STATISTICS FOR ECONOMICS
CR: 3

An intensive course in foundational mathematics and statistics and their applications to economics. Part I: Mathematics (first half of semester) Linear and nonlinear functions; differential and integral calculus; partial and total differentiation: difference and differential equations; multivariable constrained and unconstrained optimization; matrix algebra and systems of linear equations. Course concepts are illustrated using applications from microeconomic and macroeconomic theory in lectures, analytical homework, and exams. Part II: Statistics (second half of semester) Probability theory, random variables, discrete and continuous probability distributions and their properties, and mathematical expectation. Sampling and sampling distributions, estimation, hypothesis testing, and inference. Law of Large Numbers and Central Limit Theorem; finite sample and asymptotic properties of estimators. Introduction to multiple linear regression, conditional mean functions, and ordinary least squares estimation. Applications to economic relationships and models. Mastery of concepts is achieved through analytical homework, exams, and empirical assignments using modern statistical software commonly used in economics.

1030-552: ECONOMETRICS
CR: 3 PR: 1030-551

Econometrics Model specification, estimation, inference, and forecasting, mainly using multiple linear regression and least squares estimation. Causal inference: randomized control trials, instrumental variables, panel data methods, etc. Univariate time series: serial correlation, non-stationarity, cointegration, dynamic causal effects, and forecasting. Brief introduction to vector autoregression and seemingly unrelated regression. Nonlinear models for binary data and maximum likelihood estimation. A fundamental part of the course is applying theories and methods empirically using modern statistical software commonly used in economics. Brief Course Description (Arabic)g Golil shady Mapping of Student Learning Outcomes with Course Objectives*: Student Learning No. Course Objectives (Specify Objectives) Outcomes (Specify Outcome No.) 1,2

1030-593 PROJECT
CR: 3

The student undertakes an independent project on a research topic of theoretical and/or experimental

focus under the supervision of a faculty member listed in the supervisory list of the College of Graduate Studies. The objective is to provide the student with an opportunity to integrate and apply the knowledge gained throughout the course of study in a practical problem. The student must document the project in a scientific report following standard research writing guidelines and give a public presentation to the project examination committee.

1030-597: THESIS
CR: 0

1030-598: THESIS
CR: 0

2000-599: THESIS
CR: 9