Economics

Economics, ECON

1100-1110. Principles of Economics. 3 hours each. Courses provide an introduction to the study of economics and are prerequisites for most upper-level courses. Courses are independent and students have the option to begin the sequence with either ECON 1100 or 1110.

1100 (ECON 2302). Principles of Microeconomics. Business organization and market economy; theory of the firm; techniques of economic analysis in current economic problems; comparative economic systems. *Satisfies the Social and Behavioral Sciences requirement of the University Core Curriculum.*

1110 (ECON 2301). Principles of Macroeconomics. Principles of economic organization and growth in modern, industrial society; money and banking, monetary and fiscal policy; determinants of national income and business fluctuations. *Satisfies the Social and Behavioral Sciences requirement of the University Core Curriculum.*

2900. Special Problems. 1-3 hours.

3000. Current Economic Issues. 3 hours. Economic implications of current issues and problems using basic economic reasoning. Issues and problems may include defense, public debt, trade deficit, illegal drugs, education, technology, agriculture, poverty, crime, pollution, taxes, income distribution, recession, government regulation, competition, government spending, inflation, conservation, unemployment, subsidies and health. Prerequisite(s): junior standing. Intended for students not required to take specific economics course(s); may not be substituted for ECON 1100-1110 or 3550-3560. Not open to economics or business majors.

3050. The Economics of Consumption. 3 hours. Consumer decision making and consumer issues in American economy. The application of economic theory to consumer decision making in higher education, net earnings and real income, financial planning, home ownership and personal investment; consumer information; government policies.

3150. Economics of Discrimination. 3 hours. Examines the differences in economic status by gender, race and ethnicity. Intergroup differentials in income, unemployment, wages, education and housing are addressed. Prerequisite(s): ECON 1100.

3250. Industrial Relations. 3 hours. Employer/employee relations in the United States; structure, methods and objectives of labor unions and employer associations in an industrial system and changing institutional pattern. Prerequisite(s): ECON 1100-1110.

3550. Intermediate Micro-Theory. 3 hours. Demand and supply analysis, consumer choice theory, production and cost theory and market equilibrium under different market structures. Prerequisite(s): ECON 1100.

3560. Intermediate Macro-Theory. 3 hours. Factors affecting income level, employment and output; national income concepts and measurements; application of economic policy to current problems. Prerequisite(s): ECON 1100-1110.

4020. Money and Financial Institutions. 3 hours. Nature and functions of money; modern banking institutions and central banks; credit control and monetary stabilization. Prerequisite(s): ECON 1100-1110.

4030. Economic Cycles and Forecasting. 3 hours. Historical survey of economic cycles, theories and stabilization policies. Analysis of major economic aggregates involved in cycle turning points for economic expansion and contraction. Prerequisite(s): ECON 1100-1110 or consent of department. May not be repeated at the graduate level as ECON 5080.

4100. Comparative Economic Systems. 3 hours. An examination of the theoretical foundations, structure and performance of various economies of the world. Theoretical coverage emphasizes decision making, price systems, planning, information and motivation, rather than an ideological approach. Topics of modern capitalism are covered as well as the non-Western economies of the former Soviet Union, Eastern Europe and China. Prerequisite(s): ECON 1100 or 1110 or consent of department. May not be repeated at the graduate level as ECON 5070.

4140. Managerial Economics. 3 hours. Integrates microeconomic theory with accounting, finance, marketing and production management. Demand and cost estimation and forecasting; pricing; business strategy; case studies. Prerequisite(s): ECON 3550 and MATH 1190 or MATH 1400. May not be repeated at the graduate level as ECON 5140.

4150. Public Economics. 3 hours. Analysis of theoretical foundations, structure and performance of the public sector. Includes issues of public choice theory, market failures, taxing, spending, borrowing and subsidies. Prerequisite(s): ECON 3550 or consent of department. May not be repeated at the graduate level as ECON 5150.

4180. The Economics of Health Care. 3 hours. Application of economic theory and analysis to the financing and delivery of medical care. Emphasis on the use of economic concepts to understand health care markets and public policy issues. Prerequisite(s): ECON 3550. May not be repeated at the graduate level as ECON 5180.

4290. Labor Economics. 3 hours. Unemployment, industrial injuries, industrial old age, ill health and substandard employment; remedial program evaluation. Prerequisite(s): ECON 3550.

4420. Open Economy Macroeconomics. 3 hours. Macroeconomic policy options and impacts in the open economy; international monetary reforms; examinations of the impact of balance of payments adjustments under different monetary systems; role of foreign investment in economic growth. Prerequisite(s): ECON 3560. May not be repeated at the graduate level as ECON 5420. Usually offered in spring.

4440. Economics of Natural Resources and Environment. 3 hours. Natural resource management and use: problems of renewable and non-renewable resources, including scarcity and market responses, role of property rights, externalities, benefit-cost analysis and energy policy with emphasis on Texas, analysis of environmental problems and policy formulation. Prerequisite(s): ECON 1100 or consent of department. May not be repeated at the graduate level as ECON 5440.

4460. Industrial Organization and Public Policy. 3 hours. Emphasizes relationships between structure, conduct and performance of industries. Topics include concentration, barriers to entry, pricing, mergers, product differentiation, technical change, antitrust and regulation. Case studies of selected American industries illustrate theory and public policy. Prerequisite(s): ECON 3550 and MATH 1190 or MATH 1400. May not be repeated at the graduate level as ECON 5460.

4500. The Economics of Sports. 3 hours. Examination of public policy questions about professional and college sports using economic models of sports industries. Topics include theory of the firm, the organization of sports and entertainment industries, sports labor markets, racial discrimination and pricing schemes specific to sports markets. Prerequisite(s): ECON 3550. Offered spring term/semester only.

4510. History of Economic Thought. 3 hours. Economic thought since the Middle Ages. Prerequisite(s): ECON 1100-1110. May not be repeated at the graduate level as ECON 5090.

4550. Law and Economics. 3 hours. Introduction to the mutual interaction between legal systems and economic activity. Topics include an introduction to legal systems and institutions, legal analysis, application of economic concepts to various legal doctrines, contracts, torts, criminal law, constitutional law, regulation and antitrust. Emphasis is placed on using economic theory to develop and test hypotheses regarding the effects of laws on incentives and economic behavior, the allocation of resources, and the distribution of income. Prerequisite(s): ECON 1100.

4600. Economic Development. 3 hours. General analysis and survey of development theories, and problems and policies involved with those countries that have not yet attained the level of economic well-being and integration observed in the United States. Prerequisite(s): ECON 1100 and 1110, or consent of department. May not be repeated at the graduate level as ECON 5700.

4630. Research Methods for Economists. 3 hours. Research methodology for business and the social sciences. Topics include descriptive statistics, basic probability theory, discrete and continuous probability distributions, hypothesis testing and introductory regression techniques. Emphasis is placed on economics applications. Designed to prepare economics students for econometrics course work. Prerequisite(s): consent of department. May not be repeated at the graduate level as ECON 5630.

4650. Urban and Regional Economics. 3 hours. Uses economic analysis to understand the development of cities and regions and how economic activity in the areas are organized. Explores the economics of transportation and urban problems such as poverty, segregation, crime and congestion. Prerequisite(s): ECON 3550. May not be repeated at the graduate level as ECON 5750.

4850. International Trade. 3 hours. Examines the nature and theoretical foundations of modern trade between nations. Topics include patterns of international trade and production, welfare implications of trade, impacts of tariffs and quotas, balance of trade and balance of payments issues. Analysis of trade implications of international monetary systems, multinational corporations, exchange rates and economic implications of political action. Prerequisite(s): ECON 1100 and 1110, or consent of department. May not be repeated at the graduate level as ECON 5850.

4870. Introduction to Econometrics. 3 hours. Statistical analysis applied to economic problems. Regression analysis using ordinary least squares (OLS), statistical inference and the classical properties of OLS estimators. Prerequisite(s): 6 hours of statistics or consent of department. May not be repeated at the graduate level as ECON 5640.

4875. Empirical Linear Modeling. 3 hours. Develops the tools necessary to analyze, interpret and develop empirical applications of econometric estimation procedures. Exploration of an assortment of applied problems that are typically encountered in quantitative research with particular attention given to the examination of real-world, economic and other business-related phenomena. Particular attention is given to developing proficiency in the following four areas: organizing and manipulating data, estimating linear regression models, interpreting econometric results and computer output, and working with computer software. Prerequisite(s): ECON 4870.

4900-4910. Special Problems. 1-3 hours each.

4920. Cooperative Education in Economics. 1-3 hours. Supervised work in a job directly related to the student's major, professional field of study or career objective. Prerequisite(s): 12 semester hours credit in economics; student must meet employer's requirements and have consent of department chair. May be repeated for credit.

Educational Administration and Supervision

see *Graduate Catalog*

Educational Curriculum and Instruction

see *Graduate Catalog*

Educational Foundations

see *Graduate Catalog*

Educational Research

see *Graduate Catalog*

Electrical Engineering

Electrical Engineering, EENG

1910. Project I (Learning to Learn). 2 hours. Learning to Learn (L2L) is based on sound cognitive and pedagogical techniques that improve learning outcomes and make lifelong learning habitual. Students develop an understanding of how engineering and computer science are learned and how we can facilitate and encourage the lifelong learning process. Topics covered include consciousness and self-awareness, metacognition, learning styles, memory, language, reading, writing, problem solving, creativity and biology of learning.

1920. Project II (Engineering Ethics and Professionalism). 2 hours. Engineering is the place where science, business and society intersect, so engineering ethics provides an interesting way to study the relationships among these three. This project course focuses on the profession of engineering, its role in business and society, and the ethical issues that engineers face. Class involves case studies, discussions, group projects, reading, writing response papers and exams; topics include international concerns, risk safety, and environmental issues, employee loyalties and professional responsibility, professional organizations and codes of conduct.

2610. Circuit Analysis. 3 hours. Introduction to electrical elements, sources and interconnects. Ohm's law, Kirchoff's law, superposition and Thevenin's theorems are introduced. The resistive circuit, OP Amp, RL, RC circuits, Sinusoidal analysis. Prerequisite(s): MATH 1720 and PHYS 2220/2240.