**ECNS - Economics**

**ECNS 101S Economic Way of Thinking: 3 Credits (3 Lec)**
COREQUISITE: ECNS 105 or Math level 300 or above. (F, Sp)
Introduces important tools and methods of economics, including the core reasoning that underlies decision-making, analytical thinking and problem solving, demand and supply analysis, and indicators of economic performance. Emphasis is on application of the tools of economics to current issues of social and personal importance. LEVEL III MATH SUGGESTED.

**ECNS 105 Study Econ Way of Thinking: 1 Credits (1 Lec)**
(F, Sp) Directed study in a small group setting for ECNS 101 students. Students meet weekly in small groups to review ECNS 101 concepts, gain additional practice with economic problems, and complete in-class problem sets.

**ECNS 132 Econ & the Environment: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 101IS. (I) On demand. This course includes topics on renewable (fisheries, wildlife, surface water use) and non-renewable (oil, natural gas, minerals) natural resource issues, environmental resources (public lands, resource preservation), pollution control issues, and the global environment (including climate change, biodiversity and population).

**ECNS 202 Principles of Macroeconomics: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 101IS
COREQUISITE: M 121Q or equivalent. (F, Sp) Topics include inflation, unemployment, interest rates, money, and the impact of government surpluses or deficits. Government policies of growth, employment, income distribution, and international trade are examined.

**ECNS 204IS Microeconomics: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 101IS or ECNS 251IS and M 121Q or equivalent. Consumer theory and the theory of the firm are utilized to show how independent decisions by consumers and firms interact in markets to determine the price and output of goods and services.

**ECNS 206 Study Principles of Macroeconomics: 1 Credits (1 Lec)**
(F, Sp) Optional directed study in a small group setting for ECNS 202 students. Students meet weekly in small groups to review ECNS 202 concepts, gain additional practice with economic problems, and complete in-class problem sets.

**ECNS 251IS Honors Economics: 4 Credits (4 Other)**
PREREQUISITE: Consent of Instructor. (F, Sp) Economic principles are introduced and applied to a wide range of contemporary and historical problems including legal, environmental, resource, health, taxation, poverty, economic development, and macroeconomic policy issues.

**ECNS 290R Undergraduate Research: 1-8 Credits (1-8 Other)**
PREREQUISITE: ECNS 101IS and approval of instructor. (I) On demand. Intended for lower division undergraduate research/undergraduate scholars program. The student will work closely with the supervising faculty. Course will address responsible conduct of research. Repeatable up to 8 credits.

**ECNS 291 Special Topics: 1-4 Credits (1-4 Lec)**
PREREQUISITE: Dependent on the offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting regular course number. Repeatable up to 12 credits.

**ECNS 292 Independent Study: 1-3 Credits (1-3 Other)**
PREREQUISITE: Consent of instructor and approval of department head. (F) Directed research and study on an individual basis. Repeatable up to 6 credits.

**ECNS 301 Intermediate Micro with Calc: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS and M 161Q or M 171Q or equivalent. (F, Sp) A study of microeconomic theory and selected applications with emphasis on theory of consumer behavior and theory of the firm. A major objective of the course is to prepare students for additional upper-division courses in economics.

**ECNS 303 Intermediate Macro with Calc: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 202 and ECNS 204IS or ECNS 251 or AGBE 210IS; M 161 or M 171 or equivalent. (F, Sp) The economic theory of economy-wide aggregates such as national income, levels of employment, income distribution; the determinants of the performance of entire economies: nations, groups of nations, and the world.

**ECNS 309 Managerial Economics: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS; and M 161Q or M 171Q
COREQUISITE: STAT 216Q or BMGT 240IS or EIND 354. (F) An integration of various principles and concepts from different areas of economics. These are combined with several tools of analysis and related to problems of economic decision making and policy formulation at the firm level.

**ECNS 310 Health Economics: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS. (Sp) Use the concepts and tools of microeconomics to understand health care and health insurance markets and to analyze possible policy changes within the U.S. health care system.

**ECNS 311 Intermediate Microeconomics with Economics Education Applications: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 204 or ECNS 251 or consent of instructor. A study of microeconomic theory with selected applications in the area of the economics of education and emphasis on the theory of the behavior of consumers, firms, nonprofit organizations and government agencies, and welfare economics. Applications will address issues such as the labor market for primary and secondary school teachers, the effects of voucher programs on the quality of public and private education, and the returns to primary and secondary education.

**ECNS 312 Labor Economics: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS. (F) Economics of labor markets, wage determination, and human capital. The theoretical framework of labor market analysis is presented, along with empirical research results and descriptive aspects of current labor issues.

**ECNS 313 Money and Banking: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 202 or ECNS 251. (Sp) Principles and problems of money, banking, and credit. Monetary and banking history; monetary theory and policy; structure and operation of our financial system.

**ECNS 314 International Economics: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS. (F) A survey of international economic theory and policy. Major concepts explored are comparative advantage, impacts of tariffs, exchange rates, and international payments.

**ECNS 316 Economics of Crime and Risky Behaviors: 3 Credits (3 Lec)**
PREREQUISITE: ECNS 204IS or AGBE 210IS
COREQUISITE: STAT 217 or STAT 337 or BMGT 240IS or EIND 354 or equivalent. (F, Sp) This course applies economic principles to analyze criminal and risky human behavior. Topics include the rational choice model of crime, determinants of risky behavior among youths, and economic analysis of substance use and abuse.
ECNS 317 Economic Development: 3 Credits (3 Lec)
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS. (Sp)
The plight of the world’s low-income countries, and the many national and international programs devoted to its alleviation. Primary emphasis directed to economic factors, but attention given to political and social characteristics vital to economic development

ECNS 320 Public Finance: 3 Credits (3 Lec)
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS. (F)
Analysis of public expenditure programs, government behavior, and public decision making. Topics such as health care and welfare programs, and principles of taxation will be covered

ECNS 332 Econ of Natural Resources: 3 Credits (3 Lec)
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS. (Sp)
Economic principles regarding the allocation and use of natural resources and the impact of institutional factors within which these decisions are implemented. Emphasis on property rights, economic rent, and impact of regulations on resources such as forests, fisheries, land, and water

ECNS 345 Econ Org, Finance & Credit: 3 Credits (3 Lec)
PREREQUISITE: ECNS 204IS or ECNS 251IS or AGBE 210IS. (F)
Alternatives available to business owners for acquiring and maintaining control over resources used in production. Emphasis is on the management of cash, credit, debt, taxes, and interest in relation to price levels and general economic conditions. Primary focus is the agriculture industry. Cross-listed with AGBE 345

ECNS 372 Economic History of US: 3 Credits (3 Lec)
PREREQUISITE: ECNS 202 and ECNS 204IS or ECNS 251IS or AGBE 210IS. (Sp)
Interpretation of American economic growth in the context of economic theory. Examines specific issues in U.S. history while focusing on the question of how the U.S. has been able to sustain increases in per capita income

ECNS 394 Seminar: 1 Credits (1 Other)
PREREQUISITE: ECNS 204IS or ECNS 251IS or consent of instructor.
() On demand. Current economic problems and current writings of people in the profession. Topics vary each semester; students should check with the department before registering
Repeatable up to 99 credits.

ECNS 401 Microeconomic Theory: 3 Credits (3 Lec)
PREREQUISITE: ECNS 301 or consent of instructor. (F)
Current economic problems and current writings of people in the profession. Topics vary each semester; students should check with the department before registering

ECNS 403R Intro to Econometrics: 3 Credits (3 Lec)
PREREQUISITE: ECNS 301 and M 161Q or M 171Q or equivalent; STAT 217 or STAT 357 or BMGT 240IS or EIND 354 or equivalent. (F, Sp)
Senior capstone course. Statistical analysis and interpretation of quantitative data in economics. Focus on estimating economic relationships and conducting hypothesis testing in economics. Utilizes cutting-edge statistical software packages and real data to apply economic methods to problems in business, economics, and public policy

ECNS 406 Industrial Organization: 3 Credits (3 Lec)
PREREQUISITE: ECNS 301. () On demand. Offers students the opportunity to use training in price theory by focusing on issues concerned with public policy toward business. The subject matter should appeal to students in pre-law and business as well as economics majors

ECNS 432R Economic Policy Evaluation: 3 Credits (3 Lec)
PREREQUISITE: ECNS 301. (F) Senior capstone course. The relationship between microeconomic analysis and policy evaluation. The course covers applied welfare economics and methods of causal inference for evaluating public policies. By the end of the course, students will have an understanding of the types of research designs that can lead to convincing analysis. Applications include public health, crime, environmental economics, and labor market issues

ECNS 451 Behavioral & Experimental Economics: 3 Credits (3 Lec)
PREREQUISITE: ECNS 301 and STAT 217 or STAT 357 or equivalent. (Sp)
This course is an introduction to behavioral economics, a growing field which uses insights from psychology to improve economic models of behavior

ECNS 460 Advanced Data Analytics in Economics: 3 Credits (3 Lec)
PREREQUISITE: ECNS 403 or EIND 457. Course builds practical skills, intuition, and best practices for cleaning, exploring, visualizing, and presenting data, programming with R, and solving problems in prediction and causal inference. Develops familiarity with available tools for data acquisition, spatial analysis, and machine learning

ECNS 461 Financial Econometrics: 3 Credits (3 Lec)
PREREQUISITE: ECNS 403R or EIND 457. (F) Introduce important concepts in econometrics with an emphasis on time series and panel data. The R statistical software will be to develop empirical analyses of financial markets data

ECNS 490R Undergraduate Research: 1-8 Credits (1-8 Other)
PREREQUISITE: ECNS 204IS, junior standing, and approval of instructor. () On demand. Intended for upper division undergraduate research/undergraduate scholars program. The student will work closely with the supervising faculty. Course will address responsible conduct of research
Repeatable up to 8 credits.

ECNS 491 Special Topics: 1-4 Credits (1-4 Lec)
PREREQUISITE: Determined by each offering. On demand. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number
Repeatable up to 12 credits.

ECNS 492 Independent Study: 1-3 Credits (1-3 Other)
PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis
Repeatable up to 6 credits.

ECNS 494 Seminar: 1 Credits (1 Other)
PREREQUISITE: Junior standing and as determined for each offering. () On demand. Topics offered at the upper division level which are not covered in regular courses. Students participate in preparing and presenting discussion material. Course is co-convened with ECNS 594
Repeatable up to 4 credits.

ECNS 502 Macroeconomic Theory: 3 Credits (3 Lec)
PREREQUISITE: ECNS 303. (Sp) This course provides the bridge from undergraduate to introductory graduate macroeconomic theory. The foundation of modern macroeconomics and dynamic economic analysis are rigorously presented. The macroeconomic workhorses: the Solow growth model, the Neoclassical growth model, the overlapping generations model, and models of technological change and technology adoption are surveyed along with many extensions to those models. Additional topics include time inconsistency, dynamic efficiency, and the Lucas critique

ECNS 504 Microeconomic Theory II: 3 Credits (3 Lec)
PREREQUISITE: ECNS 401 and Consent of Instructor. Economic models of optimization as they apply to consumer and firm decision making. Topics covered include comparative statics, theory of the firm and consumer, and consumer and producer surplus
ECNS 560  Advanced Data Analytics in Economics: 3 Credits (3 Lec)
PREREQUISITE: ECNS 403 OR EIND 457. Course builds practical
skills, intuition, and best practices for cleaning, exploring, visualizing, and
presenting data, programming with R, and solving problems in prediction
and causal inference. Develops familiarity with available tools for data
acquisition, spatial analysis, and machine learning

ECNS 561  Econometrics I: 3 Credits (3 Lec)
PREREQUISITE: ECNS 301, M 221, and ECNS 403 or EIND 457. (F)
The use of regression analysis in the estimation of economic relationships,
with emphasis on development of the least squares technique, the properties
of estimators, and hypothesis testing in the context of the regression model

ECNS 562  Econometrics II: 3 Credits (3 Lec)
PREREQUISITE: ECNS 561 and Consent of Instructor. (Sp)
Continuation of material in ECNS 561. The course covers advanced
econometric techniques used by applied microeconomics. These typically
include panel data methods, instrumental variables, regression discontinuity
design, time series analysis, maximum likelihood estimation, and limited
dependent variable models

ECNS 569  Research Methodology: 1 Credits (1 Lec)
PREREQUISITE: Graduate standing, ECNS 301, ECNS 303. (F) The
research process as a means of acquiring knowledge which is reliable and
relevant to problems

ECNS 589  Graduate Consultation: 3 Credits (3 Other)
PREREQUISITE: Master’s standing and approval of the Dean of Graduate
Studies. () On demand. This course may be used only by students who have
completed all of their course work (and thesis, if on a thesis plan) but who
need additional faculty or staff time or help

ECNS 590  Master’s Thesis: 1-10 Credits (1-10 Other)
PREREQUISITE: Master’s standing. (Sp) May be repeated
Repeatable up to 99 credits.

ECNS 591  Special Topics: 1-4 Credits (1-4 Lec)
PREREQUISITE: Upper division courses and others as determined for
each offering. On demand. Courses not required in any curriculum for
which there is a particular one-time need, or given on a trial basis to
determine acceptability and demand before requesting a regular course
number
Repeatable up to 12 credits.

ECNS 592  Independent Study: 1-3 Credits (1-3 Other)
PREREQUISITE: Graduate standing, consent of instructor, and approval
of department head and Dean of Graduate Studies. () On demand. Directed
research and study on an individual basis
Repeatable up to 6 credits.

ECNS 594  Seminar: 1 Credits (1 Other)
PREREQUISITE: Graduate standing or seniors by petition. () On demand.
Course prerequisites as dependent on the offering. Topics offered at the
graduate level which are not covered in regular courses. Students participate
in preparing and presenting discussion material. Course is co-convened with
ECNS 494
Repeatable up to 4 credits.