

EAST ASIAN STUDIES 201 (6 or 3-3)—Supervised Study in China

Prerequisites: A G.P.A. of 2.500 and permission of the instructor. The grade-point average requirement may be modified upward at the discretion of the instructor. Courses on East Asia are recommended, particularly Chinese 111-112. The itinerary and specific content of this course will be announced early in the fall term of each year in which it is given. Travel will be to the People's Republic of China, Taiwan or Hong Kong, or to a combination of these. The program includes supervised academic projects, lectures by authorities on Chinese cultural history, and field trips to points of historical and cultural interest as well as to those related to the specific theme of the course. Students in majors other than East Asian studies are encouraged to apply. Credits may be split between East Asian Studies and other disciplines with approval of the departments involved. *Staff.*

Spring; not offered in 1999-2000

EAST ASIAN STUDIES 202 (6 or 3-3)—Supervised Study in Japan

Prerequisites: A G.P.A. of 2.500 and permission of the instructor. The grade-point average requirement may be modified upward at the discretion of the instructor. Courses on East Asia are recommended, particularly Japanese 111-112. The itinerary and specific content of this course will be announced early in the fall term of each year in which it is given. The program includes supervised academic projects, lectures by authorities on Japanese cultural history, and field trips to points of historical interest as well as to those related to the specific theme of the course. Students in majors other than East Asian studies are encouraged to apply. Credits may be split between East Asian studies and other disciplines with approval of the departments involved. *Staff.*

Spring; not offered in 1999-2000.

EAST ASIAN STUDIES 403 (3-3)—Directed Individual Study

Prerequisite: Permission of the East Asian Studies Committee. Limited to students who have unsuccessfully attempted an honors thesis.

EAST ASIAN STUDIES 473 (3)—Senior Thesis

Prerequisites: Senior standing as an East Asian studies major, cumulative grade-point average of 3.000 or higher, and permission of an East Asian studies faculty member serving as thesis director. This elective course provides an opportunity for original research on a topic selected with the thesis director. It is intended to allow the student to consolidate and apply knowledge of the East Asian field in an area of personal interest. Meetings are scheduled as the thesis director deems necessary. Though not required, it is desirable for the student to have completed a bibliographical resources course prior to enrollment. *Staff.*

Fall, Winter

EAST ASIAN STUDIES 493 (3-3)—Honors Thesis

Prerequisites: Senior standing and honors candidacy.
Fall, Winter: Individual conferences

ECONOMICS

PROFESSORS GOLDSMITH, CLINE, HERRICK
KAISER, PEPPERS, PHILLIPS, WINFREY
ASSOCIATE PROFESSORS ANDERSON, SMITKA
ASSISTANT PROFESSORS HOLLIDAY, HOOKS

MAJOR

A major in **economics** is granted upon completion of:

1. *Basic courses.* Economics 101, 102; Politics 100, 101
2. *Advanced courses.* Economics 210 (Microeconomic Theory), Economics 345 (Economic Policy), Economics 360 (Money and Banking), and Economics 390 (Macroeconomic Theory), as well as 12 more credits in other economics courses numbered above 203
3. *Statistics and econometrics.* Economics 201 (Elementary Applied Statistics), and Economics 203 (Quantitative Models for Management and Economics)
4. *Mathematics.* Achievement in calculus at a level equivalent to Mathematics 101 is required. Additional courses in mathematics are recommended
5. *Grade-point average.* A grade-point average of at least 2.000 in the economics credits offered for the major, and a grade-point average of at least 2.000 in the total of all credits, from whatever department, offered for the major

Study in mathematics is vital for students planning to pursue graduate study in economics or business. Majors in economics who intend to study law or business are advised to take courses in accounting. In general, students headed for graduate school are urged to seek the advice of members of the economics faculty in shaping their courses of study.

HONORS: An Honors Program in economics is offered for qualified students; see department head before spring of junior year for details.

★ECONOMICS 101 (3)—Principles of Microeconomics

Survey of economic principles and problems with emphasis on microeconomic analysis. The first half of a two-term survey of economics. Should be followed by Economics 102. *Staff.*

Fall

★ECONOMICS 102 (3)—Principles of Macroeconomics

Prerequisite: Economics 101. Continuation of survey begun in Economics 101, with emphasis on macroeconomic analysis. *Staff.*

Winter

ECONOMICS 120 (3)—Economics, Ecology, and Resource Conservation

The rate of growth of the human population, economic development, preservation of a healthy environment, conservation of exhaustible resources, and the unequal distribution of income in the world today. The course is directed to freshmen and sophomores. No previous economics coursework required. *Gunn.*

Spring

ECONOMICS 190 (1)—Bibliographical Resources

Prerequisites: Economics 101 and 102. A survey of the published materials available to the economist and the ways to find them. Part of the course deals with general bibliographic resources and is directed by members of the library staff. The other part is focused on the professional literature in economics and is taught by a member of the Economics Department. Recommended for majors, at the earliest convenient date, and especially for those planning graduate study in economics. Degree credit is awarded for only one 190 course regardless of academic discipline. *Staff.*

Not offered in 1999-2000

ECONOMICS 201 (Management 201) (3)—**Elementary Applied Statistics**

An introduction to statistical inference procedures. Topics covered are descriptive statistics, probability, discrete and continuous sampling distributions, estimation hypothesis testing, and statistical quality control. *DeVogt, Lamont, Pirkle.*

Fall, Winter

ECONOMICS 203 (Management 203) (3)—Quantitative Models for Management and Economics

Prerequisite: Economics/Management 201 or permission of the instructor. Topics include survey samples; decision analysis; covariance and correlation analysis; bivariate regression analysis; multiple regression analysis; time series analysis and forecasting. *Anderson, Cline, DeVogt.*

Fall, Winter

ECONOMICS 205 (3)—The Economics of Social Issues

Prerequisite: Economics 101 and 102 and sophomore standing. A survey of several important social issues and the associated government programs. The focus is on welfare reform, taxes, education, social security and health care. Analysis and evaluation of these initiatives relies heavily on basic economic concepts but also includes perspectives from politics and moral philosophy. *Winfrey.*

Spring

ECONOMICS 210 (3)—Microeconomic Theory

Prerequisites: Economics 101, 102, Mathematics 101. Contemporary theory relating to consumer behavior, the firm's optimizing behavior, the nature of competition in various types of markets, and market equilibrium over time. Recommended for economics majors not later than their junior year. *Winfrey, Kaiser, Smitka.*

Fall, Winter

ECONOMICS 240 (3)—Government and Business

Prerequisites: Economics 101. A comprehensive survey of government policies toward business in the American economy. Discussion centers around the bases and types of control and includes four major policies: maintaining competition, moderating competition, substituting regulation for competition, and government ownership. Special attention is paid to the success and failure of government policies. *Phillips.*

Fall

ECONOMICS 285 (3)—Japan's Modern Economy

Prerequisites: Economics 101 and 102 or permission of the instructor. Economic analysis of the evolution of the Japanese economy, especially since 1945. Examination of successes (rapid growth, achievement of international competitiveness, adjustment to oil crisis) and problems (pollution, urban congestion, high-cost agriculture). Current policy issues, including trade friction, budget deficits, and Japan's new role as a world economic power. Emphasis on macroeconomic analysis. *Smitka.*

Fall

ECONOMICS 286 (3)—China's Modern Economy

Prerequisites: Economics 101 and 102 or permission of the instructor. Economic analysis of the Chinese economy in the 20th century. Comparisons of pre- and post-revolutionary periods. Performance and policies of Taiwan and Mainland China. Issues include the population problem, industrialization, provision of public health and education, alleviation of poverty and inequality. Microeconomic emphasis. *Smitka.*

Winter

ECONOMICS 301 (3)—Survey of Economics

Prerequisite: At least junior standing. Not open to those with credit in Economics 101. A one-term survey course for non-majors. Scarcity, exchange, money, production, supply and demand, business enterprise, role of government. *Herrick.*

Not offered in 1999-2000

ECONOMICS 310 (3)—History of Economic Thought

Prerequisites: Economics 101, 102 and at least junior standing. Emphasis on the mainstream of orthodox economic analysis since the beginnings of the Industrial Revolution, but with attention also to the varieties of socialism and to nationalist and historical reactions against the mainstream. Development of modern economic methodology. Sub-themes running through the course are dynamic and static analysis, general and partial equilibrium, national and universal points of view. *Staff.*

Spring

ECONOMICS 311 (3)—Economics of Transition

Prerequisites: Economics 101, 102 and junior standing. Economic problems of post-socialist transition to capitalism and of the privatization of state enterprises in mixed economies. Historical background, theoretical models, current experience, significance for international business and economic policy. *Herrick.*

Spring

ECONOMICS 315 (3)—American Economic History

Prerequisites: Economics 101 and 102, or permission of the instructor. This course applies economics analysis and econometric methods to topics in American history and aspects of the development of the American economy, primarily before the 20th century. Typically, two or three aspects will be chosen for intensive study; coverage will vary from year to year. Possible topics include the economics of slavery; the coming of the railroads; the rise of the industrial corporation, boom and bust in the 19th century; innovation and technology; and the triumph of central banking. *Holliday.*

Spring 2001 and alternate years

ECONOMICS 330 (3)—Labor Economics

Prerequisites: Economics 101, 102 and at least junior standing. The mechanisms and institutions which govern the allocation of labor in the American economy. The composition, quantity, and quality of the labor force, the functioning of labor markets and labor market policy, and wage determination and the distribution of income. *Kaiser.*

Fall

ECONOMICS 331 (3)—Labor Organizations

Prerequisites: Economics 101, 102 and 330. Institutional, economic, and legal aspects of unionism. Union policies and tactics, collective bargaining, mediation and arbitration, the economic impacts of unions, and some aspects of labor law. *Kaiser.*

Winter

ECONOMICS 341 (3)—Regulated Industries in the American Economy

Prerequisites: Economics 101 and at least junior standing. The historical development of regulation; the economic characteristics of regulated industries; the regulatory commissions; the problems of finance, valuation, rate-making; and the production and utilization of service. Emphasis throughout the course is on the role of regulation in a competitive economy. *Phillips.*

Winter

ECONOMICS 342 (3)—The Corporation and Society

Prerequisites: Economics 101, 102, senior standing, and permission of the instructor. Economics majors given preference for admission to the course. An examination of the influence of the large corporation on our society in terms of economic, ethical, legal, political, and sociological values. The topics discussed include the impact of size of the firm, the social responsibility concept, and the efficacy of the competitive model for controlling corporate decision-making. The course emphasizes the case method approach. Visiting scholars lead some of the sessions. *Phillips.*

Spring

ECONOMICS 345 (3)—Economic Policy

Prerequisites: Senior standing and economics major or permission. Economics 345 is designed as a capstone course for students majoring in economics. It calls upon the student to develop a policy perspective, while applying economic theory to issues of public policy in ways that employ different methodologies and that cross the boundaries of special fields in economics, and indeed, the conventional boundaries of the discipline itself. A major part of the course consists of a term project for each student, leading to a paper, its oral presentation, and revision after receiving criticism. *Staff.*

Winter

ECONOMICS 348 (3)—Economic Analysis of Law

Prerequisites: Economics 101 and 102, or permission of the instructor. Analysis of substantive and procedural legal rules through the application of neo-classical economic theory. Emphasis is on the Chicago school of Posner, Coase, *et al.*, and their critics, stressing efficient allocation rather than income distribution. Topics include property rights and their use to attempt to internalize externalities, the efficiency of contracts and their role in allocating risk, optimal liability rules and sanctions in torts, and the efficient amount of crime. *Holliday.*

Spring 2000 and alternate years

ECONOMICS 350 (3)—Public Finance

Prerequisites: Economics 101 and 102. Public choices and the public economy. An inquiry into how the preferences of individuals and groups are translated into public sector economic activity. The nature of public activity and public choice institutions. The question of social balance. The effects of government expenditures and taxes on the economic behavior of individuals and firms. *Winfrey.*

Spring

ECONOMICS 360 (3)—Money and Banking

Prerequisites: Economics 101, 102 and at least junior standing. A study of the fundamental principles of money, credit, and banking in the United States. Emphasis is on modern conditions and problems, with particular attention to the validity of monetary and banking theory in the present domestic and international situation. *Hooks.*

Fall, Winter

ECONOMICS 370 (3)—International Trade

Prerequisites: Economics 101, 102 and at least junior standing. Specialization of production, the gains from trade, and their distribution, nationally and internationally. Theory of tariffs. Commercial policy from the mercantilist era to the present. The General Agreement on Tariffs and Trade (GATT). Transnational economic integration: the European Community and other regional blocs. *Anderson.*

Fall

ECONOMICS 371 (3)—International Finance

Prerequisites: Economics 101, 102 and at least junior standing. International monetary arrangements, balance-of-payments adjustment processes, and the mutual dependence of macroeconomic variables and policies in trading nations. The International Monetary Fund (IMF), international investment, and the World Bank. International cooperation for economic stability. *Anderson.*

Winter

ECONOMICS 380 (3)—Economic Development of Low-Income Countries

Prerequisites: Economics 101, 102 and at least junior standing. A survey of the major issues of development economics. Economic structure of low-income countries and primary causes for their limited economic growth. Economic goals and policy alternatives. Role of developed countries in the development of poor countries. Selected case studies. *Herrick.*

Winter

ECONOMICS 390 (3)—Macroeconomic Theory

Prerequisites: Economics 360 and senior standing. The course consists of the construction of a theoretical framework for the analysis of income and employment problems: unemployment, economic instability, inflation, and economic growth. *Goldsmith, Peppers.*

Fall, Winter

ECONOMICS 395 (3)—Mathematical Economics

Prerequisites: Economics 101, 102 and at least junior standing. Economic theory with emphasis on the calculus as the vehicle of exposition. The economic analysis includes models from welfare economics, production and distribution theories, the theory of the firm, macroeconomic fiscal and monetary theories, growth models, and dynamic input-output models. Students undertaking graduate work in economics without this background would be at a distinct disadvantage. *Cline, Kaiser, Winfrey.*

Winter, Spring

ECONOMICS 396 (6)—Supervised Study Abroad

Prerequisites: Economics 101, 102, at least junior standing, permission of the instructor(s), other prerequisites as specified by the instructor(s), and approval of the International Education Committee. For advanced students, the course covers a topic of current interest for which foreign travel provides a unique opportunity for significantly greater understanding. Emphasis changes from year to year and will be announced each year well in advance of registration. May not be repeated.

Staff:

Spring

ECONOMICS 399 (3)—Special Topics in Economics

Prerequisites: Economics 101, 102, and at least junior standing. For advanced students, the course covers the most interesting current topics in economics. Emphasis changes from year to year, and will be announced each year during the winter term before registration. May be repeated for a maximum of nine credits with the permission of the department head.

Staff:

Spring

ECONOMICS 401 (1), 402 (2), 403 (3), 406 (6)—**Directed Individual Study**

Prerequisites: Six credits in economics courses numbered 200 or above, either a cumulative grade-point average of 3.000 or of 3.000 in all economics courses, and permission of the instructor. The objective is to permit students to follow a course of directed study in some field of economics not presented in other courses, or to emphasize a particular field of interest. May be repeated for degree credit with permission for different topics. *Staff:*

ECONOMICS 493 (3-3)—Honors Thesis

This course is required of Honors candidates in addition to the 21 credits in economics (courses numbered 200 and above) required of all economics majors.

Fall-Winter

ENGINEERING

(Department of Physics and Engineering)

PROFESSORS AKINS, VAN NESS

MAJOR

A major in **physics-engineering** leading to a Bachelor of Science degree requires the completion of 50 credits, no more than six credits of which may be from 400-level courses, and including the following:

1. Engineering 160, 203, 204, 207 (Physics 207), 240 (Physics 240), 301, 311, 351; Mathematics 242, 332; and Physics 111, 112, 113, 114
2. Six credits from 300- or 400-level courses in chemistry, computer science, engineering, geology, mathematics, or physics with no more than three credits at the 400 level
3. Six credits from the following:
Chemistry 111, 112, or those numbered 200 or above
Computer Science 111, 112, 120 or those numbered 200 or above
Engineering numbered 200 or above
Geology numbered 200 or above
Mathematics numbered 300 or above
Physics numbered 200 or above

Additional courses required as prerequisites for completion of the above include Mathematics 101, 102 and 221

The **3-2 plan in physics-engineering** leading to a Bachelor of Science degree requires completion of 50 credits including the following:

1. Chemistry 111, 112; Computer Science 120; Engineering 203, 301; Mathematics 101, 102, 221, 242, 332; and Physics 111, 112, 113, 114
2. Six credits in engineering and/or physics numbered 200 or above

A major in **chemistry-engineering** leading to a Bachelor of Science degree requires completion of 50 credits including the following:

1. Chemistry 241, 242, 243, 261; Engineering 203, 204, 240 (Physics 240), 311; Mathematics 221, 332; and Physics 111, 112, 113, 114
2. Eight additional credits chosen from the following:
Chemistry courses numbered 200 or above; Physics courses numbered 200 or above; all Engineering courses. No more than three of these credits may be numbered 400 or above

Additional courses required as prerequisites for completion of the above include Chemistry 111 and 112 and Mathematics 101 and 102

The **3-2 plan in chemistry-engineering** leading to a Bachelor of Science degree requires completion of 50 credits including the following:

1. Chemistry 242, 261; Computer Science 120; Engineering 203, 204; and Mathematics 221
2. 11 additional credits in engineering and/or physics

Additional courses required as prerequisites for completion of the above include Chemistry 111, 112, and 241 and Mathematics 101 and 102

HONORS: An Honors Program in engineering is offered for qualified students; see department head for details.