

Course Catalog - Spring 2006

Agricultural and Consumer Economics

100 ***Agr Cons and Resource Econ*** Credit: 4 hours.

Principles of microeconomics; demand, production, supply, elasticity, markets, and trade are presented and used in the analysis of decisions of individuals relating to agricultural production, food and textile consumption, and natural resource use. Macroeconomic concepts are also introduced. Students receiving credit for ECON 102 may not receive credit for ACE 100.

This course satisfies the General Education Criteria for aUIUC Social Sciences course.

107 ***Agr Cons and Env Systems*** Credit: 2 hours.

Systems approach to analyzing problem situations from a holistic perspective, emphasizing human activities and processes, is developed using classroom illustration. This approach is then applied to a case study of a current issue impacting agriculture and rural areas. There may be a field trip to an area affected by the chosen issue. Same as ANSC 107.

161 ***Microcomputer Applications*** Credit: 3 hours.

Instruction and practice in solving data-related problems with microcomputers and general purpose software packages.

182 ***Issues in Textile Marketing*** Credit: 3 hours.

Multi-disciplinary examination of consumer issues and fundamentals of global business, both generally and specifically as related to textile marketing. Active learning environment promoted. Consumer issues focus on consumer rights, ethics, public policy. Business fundamentals examined include textile production, distribution, marketing, management, finance and regulation.

199 ***Undergraduate Open Seminar*** Credit: 1 to 5 hours.

Experimental course on a special topic in agricultural and consumer economics. Topic may not be repeated except in accordance with the Code. May be repeated up to 5 hours in a semester, to a maximum of 12 hours. Approved for both letter and S/U grading.

210 ***Environmental Economics*** Credit: 3 hours.

Economic issues surrounding environmental quality, including: costs and benefits of environmental protection; economics of environmental policies (such as those dealing with toxics, water, and air pollution, and municipal solid waste); and economics of international environmental problems (such as ozone depletion and climate change). Same as ECON 210, ENVS 210, NRES 210, and UP 210. Prerequisite: ACE 100 or ECON 102.

This course satisfies the General Education Criteria for aUIUC Social Sciences course.

222 ***Agricultural Marketing*** Credit: 3 hours.

Examines factors affecting the size of the market for agricultural products and the scope of marketing activities; functions and services performed; pricing agricultural products, including the nature and causes of price fluctuations; and costs of marketing and efforts to reduce costs and improve the marketing system. Prerequisite: ACE 100 or ECON 102.

231 ***Food and Agribusiness Mgt*** Credit: 3 hours.

Overview of management in the food and agribusiness sector. Major topics covered include: introduction to the food and agribusiness sector; the environment of the firm; fundamentals, structural design, and change in organizations; leadership, motivation, communication; and planning and control. Coverage is at the introductory level with a focus on textbook material and current issues. Prerequisite: Sophomore standing, ACE 100 or ECON 102, and ACE 161.

232 ***Management of Farm Enterprises*** Credit: 3 or 4 hours.

Economic principles are applied to the management of farms using budgeting system analysis, record analysis, financial management, and lease analysis. Problems related to resource appraisal and business organization are also addressed. Three hours credit without home farm problem, or four hours credit with home farm problem. Prerequisite: ACE 100 or ECON 102.

245 Personal Finance Credit: 3 hours.

Examination of principles of personal finance with attention given to research findings on the interdependence of financial decisions and energy, time, and other resources used to attain goals and maintain values. Prerequisite: Sophomore standing and 3 hours of sociology, psychology, or economics.

251 The World Food Economy Credit: 3 hours.

Examination of global food production, consumption, and trade; problems of hunger and population; the role of agricultural development, trade, and aid in relieving hunger. Prerequisite: ACE 100 or ECON 102.

This course satisfies the General Education Criteria for aNon-Western Cultures, and UIUC Social Sciences course.

254 Economic Systems in Africa Credit: 3 hours.

Same as AFST 254. See AFST 254.

This course satisfies the General Education Criteria for aNon-Western Cultures, and UIUC Social Sciences course.

255 Econ of Rural Poverty and Dev Credit: 3 hours.

Examination of rural poverty and development issues, with particular attention to current anti-poverty policies and programs and alternative programs. Topics include measurement of poverty; causes of rural poverty; income maintenance, education, and employment policies and their consequences; and rural development strategies. Prerequisite: ACE 100 or ECON 102 or consent of instructor.

This course satisfies the General Education Criteria for aUIUC Social Sciences course.

261 Applied Statistical Methods Credit: 4 hours.

Statistical methods and computer applications for agricultural and consumer economics, including descriptive statistics, probability distribution, interval estimation, hypothesis testing, analysis of variance, simple and multiple regression, and non-parametric methods. Students who have received credit for ECON 202, CPSC 440, STAT 100, or equivalent may not receive credit for this course. Prerequisite: MATH 124 or MATH 125.

This course satisfies the General Education Criteria for aQuant Reasoning I course.

270 Consumer Economics Credit: 3 hours.

Introduction to the study of the consumer in the American economy; sources of consumer information and consumer protection; and examination of current consumer issues within an economic framework. Prerequisite: ACE 100 or ECON 102 or consent of instructor.

286 Cultural Analysis of Textiles Credit: 3 hours.

Cross-cultural variations in form, function, and meaning of textile products analyzed in relation to physiological, psychological, and sociological needs of humans; analysis of process of acculturation; case studies.

293 Off-Campus Internship Credit: 1 to 4 hours.

Supervised, off-campus experience in a field directly pertaining to a subject matter in agricultural and consumer economics. May be repeated up to 4 hours in a semester to a maximum of 10 hours. Approved for S/U grading only. Prerequisite: Sophomore standing, cumulative GPA of 2.5 or above at the time the internship is arranged, and consent of instructor.

294 On-Campus Internship Credit: 1 to 4 hours.

Supervised, on-campus, learning experience with faculty engaged in research. Approved for S/U grading only. May be repeated up to 4 hours in a semester, to a maximum of 10 hours. Prerequisite: Sophomore standing, cumulative GPA of 2.5 or above at the time the internship is arranged, and consent of instructor.

295 Research or Thesis Credit: 1 to 4 hours.

Individual research, special problems, thesis, development and/or design work under the supervision of an appropriate member of the faculty. Approved for both S/U and letter grading. May be repeated in the same or subsequent terms as topics vary. May be repeated up to 4 hours in a semester, but no more than 12 hours of special problems, research, thesis and/or individual studies may be counted toward the degree. Prerequisite: Junior standing, cumulative GPA of 2.5 or above at the time the activity is arranged, and consent of instructor.

303 Rural Taxation Credit: 2 hours.

Federal, state, and local taxation with emphasis on their application to farm income, farm property, farm property transfers, and agricultural cooperatives; introductory material on the uses and sources of revenue.

310 Natural Resource Economics Credit: 3 hours.

Economic principles are used to analyze a broad range of natural resource policy and management issues. Economic concepts developed include public goods, social welfare, discounting, dynamic efficiency, and resource scarcity. Natural resources examined include biodiversity, fisheries, forests, minerals, soil, and water resources. Same as ENVS 310, and NRES 310. Prerequisite: ACE 100 or ECON 102.

320 Commodity Marketing Credit: 4 hours.

Examination of the structure, operations, and efficiency of grain and livestock markets; product demand and linkages between grain and livestock; problems in transportation and quality standards; price discovery and market performance; role of world trade and government policy in markets. Prerequisite: ECON 102 and ACE 222.

332 Farm Management Credit: 3 hours.

Students develop expertise in evaluating and making decisions similar to those faced by farm operators and managers. Prerequisite: ACE 232; credit or concurrent registration in ACE 340.

334 Retail Market Analysis Credit: 3 hours.

Analysis of retail markets, competition, and role of the retailer in relationship to primary and secondary markets and the consumer. Prerequisite: BADM 320 or concurrent registration in BADM 320.

340 Agricultural Finance Credit: 3 hours.

Introduction to agricultural finance including study of financial markets and institutions providing debt and equity capital to agricultural firms, development of skills in applying principles and methods of financial management to agricultural firms Prerequisite: ACE 232 or ACCY 201, or equivalent.

341 Contemp Issues in AgAccy&Fin Credit: 2 hours.

Students study contemporary issues and career opportunities in AgriAccounting and AgriFinance in this course. An in-depth dialogue with industry professionals helps develop an understanding of the skill sets needed to succeed in each of the different career paths discussed. This course may not be repeated for credit.

387 Textiles in the Global Economy Credit: 3 hours.

History of the development of fiber, fabric, apparel, and related industries; present structure, organization, domestic and international operations; interrelationships of these industries; textile trade policies; trends of the major sectors of the primary and secondary markets; and application of the principles of marketing to the textile complex.

396 Honors Research or Thesis Credit: 1 to 4 hours.

Individual research, special problems, thesis, development and/or design work under the direction of the Honors advisor. May be repeated in the same or subsequent terms as topics vary. May be repeated up to 4 hours in a semester, but no more than 12 hours of special problems, research, thesis and/or individual studies may be counted toward the degree. Prerequisite: Junior standing, admission to the ACES Honors Program, and consent of instructor.

398 Seminar Credit: 1 to 3 hours.

Group discussion on a special topic in a field of study directly pertaining to subject matter in agricultural and consumer economics. Approved for both letter and S/U grading. May be repeated to 3 hours in a semester, up to a maximum of 12 total hours. Prerequisite: Junior standing and consent of instructor.

403 Agricultural Law Credit: 3 to 4 hours.

Relation of common-law principles and statutory law to land tenure, farm tenancy, farm labor, farm management, taxation, and other problems involving agriculture. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: Junior standing.

406 Environmental Law Credit: 3 to 4 hours.

Examination of environmental law issues. Topics include common-law pollution control; role of administrative agencies and courts; federal and state power; air and water pollution; regulation of toxic substances; protection of land, soil and other natural resources. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: ACE 403, or BADM 300, or BADM 301 recommended.

411 *Environment and Development* Credit: 3 to 4 hours.

Relationship between economic development and environmental sustainability through application of cost-benefit analysis and environmental economics. Developing and developed country issues are considered with an emphasis on hands-on applications of project appraisal, social benefit-cost analysis, green accounting, and non-market valuation. 3 undergraduate hours. 4 graduate hours. Prerequisite: ECON 302 or equivalent.

427 *Commodity Price Analysis* Credit: 3 hours.

A comprehensive and in-depth survey of commodity price analysis with emphasis on the fundamental factors affecting prices of agricultural products; sources of information relating to production and demand factors; government activities as they relate to prices of agricultural products; technical analysis of agricultural product prices; and market efficiency and forecasting. Prerequisite: ACE 100 or ECON 102; ACE 261, or equivalent.

428 *Commodity Futures and Options* Credit: 3 hours.

Development of futures trading; operation and governance of commodity exchanges; economic functions of futures trading; operational procedures and problems in using futures markets; public regulation of futures trading; evaluation of market performance. Field trips required; see Class Schedule for approximate cost. Prerequisite: ACE 100 or ECON 102.

430 *Food Marketing* Credit: 4 hours.

Performance of the food system; marketing margins; transportation, advertising, and retailing of food products; structure, conduct, and performance of food marketing firms and industries; government and public interest in the food system. Same as FSHN 425. Prerequisite: ACE 100 or ECON 102, ACE 222 recommended.

431 *Agri-food Strategic Management* Credit: 3 hours.

Process of strategic decision-making in food and agribusiness firms; methods for analysis of business and regulatory environment; organizational issues in strategy choice for firms and supply chains. Same as BADM 438. Prerequisite: ACE 231, BADM 320, or ACE 222; or consent of instructor,

433 *Agribusiness Planning* Credit: 3 hours.

Important aspects in the development of a marketing plan for a new or existing product or service in the agribusiness sector. Includes development of a complete business plan for a specific firm or segment with special attention to the organization of the firm and the markets in which the firm will operate. In addition, a marketing plan will be developed for a chosen product including: market analysis; business strategy and goals; implementation; financial analysis; monitoring, and contingency planning. Computerized planning packages and presentation packages are used in the development of the final presentation. Prerequisite: ACE 231 or consent of instructor.

435 *Global Agribusiness Management* Credit: 3 to 4 hours.

Examination of the economic and strategic management of food, textile, and agribusiness firms within a global business environment; topics include the global business environment and its institutions, organizational strategies and policies, and business operations in global agricultural, food and textile industries. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: ACE 231, ACE 222, or BADM 320 or consent of instructor.

439 *Agri-food Management Practicum* Credit: 4 hours.

Capstone course in Agribusiness Markets and Management. The role and practice of senior management in food and agribusiness industries are examined with an emphasis on identification, analysis, and management of strategic issues in the sector. In-depth dialogue with executives-in-residence from the agribusiness sector are an integral part of the experience. Same as BADM 439. Prerequisite: ACE 431 and consent of instructor. Course cannot be taken credit /no credit.

441 *Case Studies in AgAccy&Finance* Credit: 3 hours.

This is a capstone course for students specializing in accountancy and finance. Students apply business concepts and tools to real-world situations in agribusiness. Industry professionals participate in the learning experience. 3

undergraduate hours. This course may not be repeated for credit. Prerequisite: ACCY 301 or FIN 300.

442 *Modeling App in Agr Finance* Credit: 3 to 4 hours.

Analysis of the financial management/performance of agribusiness and cooperative firms: interpretation of financial statements, analysis of capital structure, working capital management, capital budgeting, and introduction to real options. Course involves computerized model development paralleling text material. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: ACE 340, or FIN 221, or equivalent.

443 *Inter Agricultural Finance* Credit: 3 to 4 hours.

Examination of finance principles applied to commercial agriculture at an intermediate level; farm financial and investment analysis, risk and liquidity analysis, capital structure and leasing in agriculture; and organization, structure, and analysis of rural financial markets and institutions. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: ACE 340 and 261, or equivalent.

445 *Financial Plan and Counseling* Credit: 4 hours.

Financial planning and counseling philosophies, techniques, and procedures with application to individuals and families in various life cycle stages and family structures. Course will use case studies, problem-solving activities, educational exhibit preparation and participation. A financial counseling clinic will focus on debt management and retirement planning. Prerequisite: ACE 245 and junior standing or consent of instructor; FIN 230 or FIN 232 and FIN 434 are recommended.

448 *Rural Real Estate Appraisal* Credit: 3 to 4 hours.

Valuation methods and value bases of rural real estate; legal aspects of property rights, appraisal theory and procedures, condemnation appraisal, characteristics of the rural land market, soil identification and productivity, and other legal, economic, agronomic, and engineering aspects of real estate valuation. Laboratory field trips, including a practice appraisal; see Class Schedule for approximate cost. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: NRES 201 and ACE 232, or equivalent.

451 *Agriculture in Intl Dev* Credit: 3 to 4 hours.

Economics of agricultural development and the relationships between agriculture and other sectors of the economy in developing nations; agricultural productivity and levels of living in the less developed areas of the world; and studies of agricultural development in different world regions including Africa, Asia, and Latin America. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: ECON 302 or consent of instructor.

452 *The Latin American Economies* Credit: 2 to 4 hours.

Same as ECON 452. See ECON 452.

453 *Econ Dev in S and SE Asia* Credit: 2 to 4 hours.

Analysis of plans and progress toward economic development in South and Southeast Asia; economic characteristics of the area and their significance for economic development. 3 undergraduate hours. 2 to 4 graduate hours. Prerequisite: ECON 302 or consent of instructor.

454 *Econ Dev of Tropical Africa* Credit: 2 to 4 hours.

Types of African economies and growth of the exchange economy; development of natural resources, industry, trade, finance, and education; analysis of economic integration, governmental planning, and development projects; and demographic, land tenure, and institutional influences on development. 3 undergraduate hours. 2 to 4 graduate hours. Prerequisite: ECON 302 or consent of instructor.

455 *Intl Trade in Food and Agr* Credit: 3 hours.

Economic theory used to analyze trends and patterns of international trade in major agricultural commodities and to understand interaction between economic development, policy, and trade; welfare implications of policies affecting production, consumption, and trade; implications of protectionism, free trade, regional trade blocs, and multilateral trade liberalization, and the role for international trade institutions. Prerequisite: ECON 302 or consent of instructor.

456 *Agr and Food Policies* Credit: 3 to 4 hours.

Analysis of agricultural and food policies and programs and their effects on producers and consumers of agricultural products. Formulation of agricultural and food policies are examined with an emphasis on historical and current

economic problems affecting agriculture and rural America. 3 undergraduate hours. 3 or 4 graduate hours.
Prerequisite: ECON 302 or consent of instructor.

471 Consumer Economic Policy Credit: 3 hours.

Analysis of choice-making, buying, using, and disposing of consumer goods by families, social policy Perspectives considered. 3 undergraduate hours. Prerequisite: ACE 100 or equivalent and junior standing.

474 Econ of Consumption Credit: 3 to 4 hours.

Concepts, theories, and methods for analysis of the micro and macro aspects of consumption; includes standards and content of consumption and description of consumption patterns and trends in the USA and selected other countries. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: ECON 302 or consent of instructor; a course in statistics; junior standing.

476 Family Economics Credit: 2 to 4 hours.

Economic welfare of American families, application of economic theory to the behavior of families and individuals with respect to time allocation between the home and the market; family forms; human capital accumulation; gender differences in income; income inequality; and poverty. Role of public policy is considered. 3 undergraduate hours. 2 to 4 graduate hours. Prerequisite: ECON 302 or consent of instructor; a course in statistics; senior standing.

480 Fiber and Textile Performance Credit: 4 hours.

Same as NRES 480. See NRES 480.

486 Business and Public Policy Credit: 3 hours.

Non-market environment (economic, legal, political, technological, and social) of business with a focus on business-government relationships (domestic and international), public policy, and corporate social responsibility. Issues, interests, institutions, and information that comprise environment and affect business performance are examined. Prerequisite: BADM 320 and ACE 387, or consent of instructor.

487 Consumers in the Marketplace Credit: 3 to 4 hours.

Analysis of the interdependent relationships between marketing stimuli and the day-to-day lives of consumers with an emphasis on the processes involved when individuals or groups select, purchase, use, or dispose of products and services to satisfy their needs and desires. Consumer phenomena are discussed from multi-disciplinary perspectives and include research and theory from consumer behavior, cultural anthropology, marketing, sociology, and psychology. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: Six hours of social science.

496 Practicum Credit: 4 to 12 hours.

Cooperatively supervised field experience in management and administration in a textile marketing business. Only four hours may be applied to the total required for a graduate degree. At the undergraduate level, up to four hours may be counted toward the hours required in Agricultural and Consumer Economics. Approved for both letter and S/U grading. Prerequisite: ACE 387 or ACE 334 and consent of instructor. Not available to students on probation.

499 Seminar Credit: 1 to 4 hours.

Group discussion or an experimental course on a special topic in agricultural and consumer economics. Approved for both letter and S/U grading. May be repeated in the same semester to 4 hours, or subsequent terms to a maximum of 12 hours as topics vary.

500 Applied Economic Theory Credit: 4 hours.

Provides an understanding of theory of the firm, consumer economics and various market models necessary to conduct applied professional economic research with special emphasis on applications relevant to agricultural, consumer, development, and resource economics. Multivariate calculus and optimization methods are used.

501 Risk and Info: Theory and App Credit: 4 hours.

Applications of the theory of economic behavior under uncertainty and asymmetric information. Analysis of individual decision making under uncertainty includes: tests of the expected utility hypothesis; comparative statistics of changes in risk preferences and risk; and moment based models of decision making. Analysis of economic equilibrium under uncertainty and asymmetric information includes tests for complete markets and applications of noncooperative game theory. Prerequisite: Concurrent enrollment in ECON 500 and ECON 506.

502 Demand/Supply/Firms/Households Credit: 4 hours.

Applications of demand and supply theories and applications of firm and household behavior. Topics include demand and supply systems, aggregation and separability, dynamics, formation and boundaries of the firm, household decision making, intrahousehold allocation, allocation of time, human capital, and hedonics. Same as ECON 513. Prerequisite: ECON 500 and ACE 501.

503 Equilibrium and Welfare Econ Credit: 4 hours.

Provides a theoretical and applied treatment of economic equilibrium and the consequences of displacement of equilibrium for the welfare levels of economic agents. Displacement of equilibrium will be shown to be brought about by changes in government policy, technology, and consumer preferences. Welfare measures under partial equilibrium, general equilibrium, and multi-market models will be presented. Includes various applications of welfare economics in the analysis of policy and technological change. Prerequisite: ECON 500 and at least two semesters of college calculus.

510 Adv Natural Resource Economics Credit: 4 hours.

Economic theory is used to examine the allocation of renewable and efficiency issues that arise from natural resource policy and management issues. Same as ECON 515, ENVS 510, and NRES 510. Prerequisite: ECON 302 or equivalent.

516 Environmental Economics Credit: 4 hours.

Same as ECON 516, and ENVS 511. See ECON 516.

520 Food Commodity Markets Credit: 4 hours.

Examination of selected economic problems in marketing agricultural products and relevant theory and empirical methods for analyzing and interpreting research results. Topics include: operational efficiency in marketing firms and industries; efficient allocation over space, form, and time; price making institutions; and research in demand stimulation and selected issues in trade. Prerequisite: ACE 562 and ACE 563, and ECON 500; or equivalent.

527 Advanced Price Analysis Credit: 4 hours.

Study of methods used to analyze factors affecting agricultural prices; analysis of agricultural prices and price movements with respect to time, space, and form; and examination of methods of price forecasting and techniques of time series analysis. Prerequisite: ACE 562 or ECON 507 and ECON 500; or equivalent.

528 Research in Futures Markets Credit: 4 hours.

Research literature on commodity futures and options markets, both theoretical and empirical; topics include: supply of storage, basis models, theory of the firm and hedging under uncertainty, optimal hedging, speculative returns, market performance, pricing efficiency and option pricing. Prerequisite: ACE 328 or equivalent, and ECON 500 or equivalent.

530 Applied Production Economics Credit: 4 hours.

Econometric applications of the economic theory of production. Basic theory includes production functions; duality; cost functions; profit functions and parameters that can be derived from them such as returns to scale or substitution elasticity. Econometric issues include simultaneity bias, panel data, instrumental variables, generalized method of moments, functional forms, nonparametrics, and dynamics. Prerequisite: ECON 500 and ACE 562.

541 Research in Agr Finance Credit: 3 hours.

Current research issues in agricultural finance; topics include simulation and optimization modeling and applications, economics of organization, principal agent issues, and firm-level performance evaluation. Emphasis is placed on developing a framework to evaluate research and communicate results. Prerequisite: ACE 562; ACE 563; ACE 443 or consent of instructor.

542 Advanced Agricultural Finance Credit: 4 hours.

Theory of financial decision making as applied to farms and firms related to agriculture. Topics include asset pricing models, financial markets, capital structure, farmland control, term structure of interest rates, risk management and credit evaluation. Prerequisite: ECON 500, calculus, and mathematical statistics, or equivalent; at least one course in finance strongly recommended; or consent of instructor.

551 *International Food Policy I* Credit: 4 hours.

Economic theory and empirical analyses are used to study economic development, emphasizing the structural transformation of an economy and the role of public policies in supporting or hindering that process. Topics include growth, determinants of supply and demand, and measuring and evaluating the effects of public policies. Special attention is paid to the role of the agricultural sector, as the home of most productive resources in the early stages of development. Prerequisite: ECON 500 or equivalent.

556 *International Food Policy II* Credit: 4 hours.

Economic theory is used to study both the effects and the causes of public policies in an international context that influence agricultural industries, consumers, and taxpayers. Neoclassical models of government intervention are used to study the welfare effects of income redistribution and stabilization policies and macroeconomic policies as they affect agriculture. Formal models of political economy and public choice are used to analyze the underlying causes of public policy. Emphasis is placed on the political power of interest groups as an explanation of public policy decisions. Prerequisite: ECON 500, and ACE 503 or consent of instructor.

560 *Research Methods* Credit: 3 to 4 hours.

Survey of research methods that address practical and theoretical issues involved in designing, conducting, and evaluating research in agricultural and consumer economics. Prerequisite: A graduate level course in statistics.

561 *Adv Res and Scholarly Comm* Credit: 4 hours.

Seminar intended for Ph.D. students who have completed written preliminary examinations. Develops a comprehensive understanding of the research process. Discussions include identification of research topics, structure of research proposals, review of literature, effective communication, management of research activities, and contributions to scholarly debate. Prerequisite: Consent of instructor.

562 *Applied Regression Models I* Credit: 2 hours.

Application of simple regression methods to problems in agricultural and consumer economics with emphasis on foundational probability, random variable, and distribution concepts, development of the simple, two-variable regression model; estimation of model parameters; hypothesis testing; and prediction. Prerequisite: ACE 261 and MATH 234, or equivalents.

563 *Optimization Methods* Credit: 2 hours.

Application of mathematical programming methods to discrete models in agricultural economics; Kuhn-Tucker theorem, Lagrange multipliers, duality, simplex method as applied to linear and quadratic programming, and input-output analysis models in agriculture. Prerequisite: MATH 124 and MATH 234.

564 *Applied Regression Models II* Credit: 2 hours.

Application of multiple regression methods to problems in agricultural and consumer economics with emphasis on extensions to the simple, two-variable regression model, development of the multiple regression model; and problems created by violations of basic model assumptions. Prerequisite: ACE 562 or equivalent.

565 *Modeling Dynamic Econ Systems* Credit: 2 hours.

Computer simulation modeling as a tool for studying the behavior of dynamic economic systems with an emphasis on applications of the dynamic simulation approach to problems in resource economics and management. STELLA, a computer simulation software, is used in the course. Prerequisite: MATH 234 or equivalent; ACE 562 or ACE 563 or equivalent.

566 *Mathematics for Applied Econ* Credit: 3 hours.

Applications of concepts of linear algebra, calculus, and multivariate optimization to equilibrium analysis, comparative statistics, and other topics in agricultural and consumer economics.

567 *Adv Programming for App Econ* Credit: 4 hours.

Advanced mathematical programming methods with particular emphasis on applications in agricultural and consumer economics. Includes linear programming and extensions, nonlinear programming, sector modeling, risk modeling, and methodological issues in mathematical programming modeling of agricultural systems. Prerequisite: ACE 563 or equivalent.

570 Family and Consumption Econ Credit: 2 or 4 hours.

Discussion of current topics and review of the literature in family and consumption economics. Prerequisite: ECON 500 or equivalent.

572 Economics of the Family Credit: 4 hours.

Discussion and analysis of advanced literature on the economics of the family, developed within the models of human capital and allocation of time, emphasizing the theory and empirical applications. Prerequisite: ECON 500 or 502, ECON 506 or SOC 485, or equivalent.

582 Textile Finishing Credit: 4 hours.

Same as NRES 582. See NRES 582.

584 Topics in Consumer Marketing Credit: 4 hours.

Analysis of consumer marketing with emphasis on research needs and future research directions. Prerequisite: A course in marketing or consent of instructor.

585 High Performance Fibers Credit: 4 hours.

Same as NRES 585. See NRES 585.

588 Political Econ, World Textiles Credit: 4 hours.

Examination of the structure and environment of the world textile industry with an emphasis on dynamic interactions between states, corporation, and markets. Related literature, research, and theory are reviewed.

591 Independent Study Credit: 0 to 8 hours.

Individual research work under the supervision of an appropriate member of the faculty. Approved for both S/U and letter grading. May be repeated to a maximum of 8 hours if topics vary.

592 Special Topics Credit: 0 to 8 hours.

Group instruction on a special topic under the direction of one or more members of the faculty. Approved for both letter and S/U grading. If topics vary, may be repeated in a semester to 8 hours, up to a maximum of 24 total hours.

594 Seminars and Workshops Credit: 0 to 8 hours.

Participation in a seminar or workshop with other graduate students and faculty members. May be repeated. Approved for both letter and S/U grading.

599 Thesis Research Credit: 0 to 16 hours.

Individual research under supervision of members of the graduate teaching faculty in their respective fields. May be repeated. Approved for S/U grading only.