

APPLIED ECONOMICS (AEC)

AEC 121. DISCOVERING AGRICULTURAL AND RESOURCE ECONOMICS. (1 Credit)

Explore issues, opportunities, and challenges in the dynamic and diverse employment field of agricultural and resource economics.

Equivalent to: AREC 121

AEC 199. SPECIAL TOPICS. (1-4 Credits)

Targeted courses that focus on specific topics in agricultural and resource economics. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.

Equivalent to: AREC 199

This course is repeatable for 8 credits.

AEC 211. AGRICULTURAL AND FOOD MANAGEMENT. (4 Credits)

Economic and business principles applied to the management of firms in agricultural and food industries, including farms, ranches and nurseries, agricultural input suppliers, packers, shippers, processors and food manufacturers and distributors; firm-level goal setting, information management and financial analysis.

Prerequisites: AEC 250 with C- or better or AEC 251 with C- or better or AREC 250 with C- or better or ECON 201 with C- or better or ECON 201H with C- or better

Equivalent to: AREC 211

AEC 221. AGRICULTURAL AND FOOD MARKETING. (3 Credits)

Organization and functions of agricultural and food markets both domestic and international; market channels and supply chains for various agricultural commodities and food products; role of agribusiness, cooperatives, and government in marketing decisions.

Prerequisites: AEC 250 with D- or better or AEC 251 with D- or better or AREC 250 with D- or better or ECON 201 with D- or better or ECON 201H with D- or better

Equivalent to: AREC 221

AEC 240. *RURAL ECONOMICS OF PLACE AND PEOPLE. (3 Credits)

Provides perspective on issues influencing rural communities and economic development in rural America. People, places and natural resources of rural communities play a vital role in economic vitality of the West, yet rural landscapes are changing faster than many urban counterparts. (Bacc Core Course)

Attributes: CPWC – Core, Pers, West Culture

Equivalent to: AREC 240

AEC 243. *GLOBAL POVERTY AND SUSTAINABLE DEVELOPMENT. (3 Credits)

Students are introduced to the challenges of eradicating extreme poverty and achieving sustainable economic development in the world. Topics include: the measurement of poverty and inequality; analysis of food security and agricultural development; the role of health and education in economic development; credit markets; risk and insurance; climate change and biodiversity; gender equality; rural-urban and international migration; population growth and development; institutions and economic performance; the political economy of development. (Bacc Core Course)

Attributes: CPSI – Core, Pers, Soc Proc & Inst

AEC 250. *INTRODUCTION TO ENVIRONMENTAL ECONOMICS AND POLICY. (3 Credits)

Examines how economic forces and social institutions cause environmental degradation and help build management solutions. Explains key economic concepts for valuing environmental resources and evaluating the trade-offs of alternative management approaches from private markets to regulation. Applies the concepts and theories to topical environmental issues such as water pollution and conserving biodiversity. (Bacc Core Course)

Attributes: CPSI – Core, Pers, Soc Proc & Inst

Equivalent to: AEC 250H, AREC 250, AREC 250

Recommended: MTH 111

AEC 250H. *INTRODUCTION TO ENVIRONMENTAL ECONOMICS AND POLICY. (3 Credits)

Examines how economic forces and social institutions cause environmental degradation and help build management solutions. Explains key economic concepts for valuing environmental resources and evaluating the trade-offs of alternative management approaches from private markets to regulation. Applies the concepts and theories to topical environmental issues such as water pollution and conserving biodiversity. (Bacc Core Course)

Attributes: CPSI – Core, Pers, Soc Proc & Inst; HNRS – Honors Course Designator

Equivalent to: AEC 250

Recommended: MTH 111

AEC 251. *INTRODUCTION TO AGRICULTURAL AND FOOD ECONOMICS. (3 Credits)

An introductory applied microeconomics course focused on the unique challenges of agricultural and food systems. Topics include rational choice theory, models of supply and demand, and price formation, with particular attention on markets for agricultural and food products. Additional topics include market interdependencies, government policy, the behavior of firms, and market structure within agricultural and food systems. (Bacc Core Course)

Attributes: CPSI – Core, Pers, Soc Proc & Inst

Recommended: MTH 111

AEC 253. *ENVIRONMENTAL LAW, POLICY, AND ECONOMICS. (4 Credits)

A general introduction to federal environmental law and policy in the U.S. Familiarizes students with basic legal institutions and concepts of the American legal system, outlines the transition of environmental policy from its common law roots to its modern administrative law form, and gives an overview of the major federal environmental statutes. Relationships among legal theory and process and economic principles are emphasized. (Bacc Core Course)

Attributes: CPWC – Core, Pers, West Culture

Equivalent to: AREC 253

AEC 299. SPECIAL TOPICS. (1-4 Credits)

Targeted courses that focus on specific topics in agricultural and resource economics. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.

Equivalent to: AREC 299

This course is repeatable for 8 credits.

AEC 310. EXPLORING EXPERIENTIAL LEARNING OPPORTUNITIES. (2 Credits)

Provides background and preparation for students' experiential learning (EL) activities. Students will be shown examples of appropriate EL, how to find and compete for opportunities, and how to establish and define their learning objectives for EL. Resume writing, appropriate conduct in the workplace, as well as writing and oral presentation skills will be covered. A proposal for an EL activity will be prepared and presented to classmates. Graded P/N.

Recommended: WR 121

AEC 311. INTERMEDIATE APPLIED ECONOMICS I: PRODUCERS AND CONSUMERS. (4 Credits)

An examination of the theories of consumer behavior and demand, production cost, the firm, supply, and competitive and monopoly market structures.

Prerequisites: ((AEC 250 with C- or better or AREC 250 with C- or better) or AEC 251 with C- or better or (ECON 201 with C- or better or ECON 201H with C- or better)) and (MTH 241 [C-] or (MTH 251 [C-] or MTH 251H [C-]))

Equivalent to: AREC 311

AEC 313. INTERMEDIATE APPLIED ECONOMICS II: MARKETS, WELFARE & POLICY. (4 Credits)

Complementing the private-decision focus in AEC 311, the present course focuses on the intermediate microeconomic theory of social welfare and public decision-making. Topics include exchange, monopoly, game theory, social welfare, externalities, public goods and choice, asymmetric information, uncertainty, and cost-benefit analysis. Substantial attention will be given to the implications of these theories for real-world problems, especially regarding resource and environmental issues.

Prerequisites: MTH 241 with C- or better or (AEC 311 with C- or better or AREC 311 with D- or better or ECON 311 with C- or better)

Equivalent to: AREC 313

AEC 351. *NATURAL RESOURCE ECONOMICS AND POLICY. (3 Credits)

Application of principles of economics to identify the causes, consequences, and ways of dealing with natural resource problems, including problems associated with fisheries, forests, water resources, and land. Conceptual topics and policy applications. Emphasis is on developing students' skill in applying an economic way of thinking about natural resource management. (Bacc Core Course)

Attributes: CSGI – Core, Synth, Global Issues

Prerequisites: (AEC 250 with D- or better or AREC 250 with D- or better or ECON 201 with D- or better or ECON 201H with D- or better)

Equivalent to: AREC 351

Recommended: MTH 111

AEC 352. *ENVIRONMENTAL ECONOMICS AND POLICY. (3 Credits)

Provides an overview of the interrelationships between economic activity, the environment, and public policy. Through case studies, discussion groups, readings, and group activities, students learn how economists define and analyze environmental problems and the types of policies they advocate for managing environmental quality. CROSSLISTED as ECON 352. (Bacc Core Course)

Attributes: CSGI – Core, Synth, Global Issues

Prerequisites: AEC 250 with D- or better or AREC 250 with D- or better or ECON 201 with D- or better or ECON 201H with D- or better

Equivalent to: AREC 352

AEC 353. *INTRODUCTION TO COASTAL AND MARINE RESOURCE ECONOMICS. (3 Credits)

Introduces tools of economic analysis for understanding coastal and marine resource management. Surveys a selection of current topics in the field, emphasizing innovation in production and stewardship, institutions, and sustainability. (Bacc Core Course)

Attributes: CSST – Core, Synthesis, Science/Technology/Society

Prerequisites: MTH 111 with C- or better and (AEC 250 [C-] or AREC 250 [C-] or ECON 201 [C-] or ECON 201H [C-])

AEC 372. AGRICULTURAL COOPERATIVES. (3 Credits)

An introduction to and in-depth examination of the agricultural cooperative. Students will gain a working knowledge of the concepts, principles, and terminology of agricultural cooperatives through reference materials, lectures, presentations by guest speakers and a cooperatives tour. Students will consider the strengths and weaknesses of the agricultural cooperative as well as the unique management and operational challenges inherent to this form of business operation.

Prerequisites: AEC 211 with D- or better or AREC 211 with D- or better

Equivalent to: AREC 372

AEC 388. AGRICULTURAL LAW. (4 Credits)

Application of legal principles to business decision making in farming, ranching, and the agricultural support industry. Consideration of the obligations arising out of contract, tort, property, water, public land, and natural resource law.

Equivalent to: AREC 388

AEC 399. SPECIAL TOPICS. (1-4 Credits)

Targeted courses that focus on specific topics in agricultural and resource economics. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.

Equivalent to: AEC 399H, AREC 399H

This course is repeatable for 8 credits.

AEC 399H. SPECIAL TOPICS. (1-4 Credits)

Targeted courses that focus on specific topics in agricultural and resource economics. Topics may vary from term to term and from year to year. May be repeated for credit when topics differ.

Attributes: HNRS – Honors Course Designator

Equivalent to: AEC 399, AREC 399

This course is repeatable for 8 credits.

AEC 401. RESEARCH AND SCHOLARSHIP. (1-16 Credits)

Equivalent to: AREC 401

This course is repeatable for 16 credits.

AEC 402. INDEPENDENT STUDY. (1-16 Credits)

Equivalent to: AREC 402

This course is repeatable for 16 credits.

AEC 403. THESIS. (1-16 Credits)

Equivalent to: AREC 403

This course is repeatable for 16 credits.

AEC 405. READING AND CONFERENCE. (1-16 Credits)

Equivalent to: AREC 405

This course is repeatable for 16 credits.

AEC 406. PROJECTS. (1-16 Credits)

Equivalent to: AREC 406

This course is repeatable for 16 credits.

AEC 407. SEMINAR. (1-16 Credits)

Equivalent to: AEC 407H, AREC 407, AREC 407H

This course is repeatable for 16 credits.

AEC 407H. SEMINAR. (1-16 Credits)

Attributes: HNRS – Honors Course Designator

Equivalent to: AEC 407, AREC 407, AREC 407H

This course is repeatable for 16 credits.

AEC 408. WORKSHOP. (1-16 Credits)

Equivalent to: AREC 408

This course is repeatable for 16 credits.

AEC 410. INTERNSHIP. (1-6 Credits)

Practical on-the-job training in agricultural business, marketing, commercial agricultural production, or related private or public organizations. Graded P/N.

Equivalent to: AREC 410

This course is repeatable for 6 credits.

AEC 421. ECONOMICS OF RURAL POVERTY AND THE U.S. SOCIAL SAFETY NET. (4 Credits)

Examines the geography of poverty in the United States and the "social safety net" that the U.S. has constructed to reduce poverty and its negative effects. Understand the geographical consequences of federal policies and the challenges of providing social safety net programs in rural areas. CROSSLISTED as RS 421.

Equivalent to: AREC 421, RS 421

AEC 432. ENVIRONMENTAL LAW. (4 Credits)

Legal relationships arising out of rights to air, water, and land. The impact of federal and state regulation on pollution control and on the production, use, and disposal of hazardous materials.

Equivalent to: AREC 432

AEC 434. *MEASURING RESOURCE AND ENVIRONMENTAL IMPACTS. (4 Credits)

Examines economic perspectives on the allocation of natural resources and the management of environmental quality, emphasis on the use of economic concepts in the design and evaluation of public policies. (Writing Intensive Course)

Attributes: CWIC – Core, Skills, WIC

Prerequisites: AEC 313 with D- or better or AREC 313 with D- or better

Equivalent to: AREC 434

AEC 440. THE ECONOMICS OF BUSINESS ORGANIZATION IN THE FOOD SYSTEM. (4 Credits)

Application of economic analysis to questions related to the choice of an appropriate form of business organization for a wide variety of food system enterprises. Topics include costs of contracting, costs of ownership, enterprise scope and scale, and the dynamics of business ownership and structure. Particular emphasis is given to entrepreneurial enterprises and cooperative businesses in the food system.

Prerequisites: AEC 311 with D- or better or ECON 311 with D- or better

AEC 442. AGRICULTURAL BUSINESS MANAGEMENT. (4 Credits)

Application of economic, financial, and strategic management principles to agricultural business with a focus on a case-study framework for analysis and business decision making for alternative business management strategies.

Equivalent to: AREC 442

AEC 444. COMMODITY FUTURES AND OPTIONS MARKETS. (4 Credits)

Provides an overview of the basic concepts needed to use commodity futures and options markets to successfully manage price risk.

To address the increasingly global economy in which commodity transactions occur, the course also includes financial futures such as interest rates and currencies. Specific topics covered include contract standardization, speculation and hedging, opening and closing of positions, and basis, i.e. the relationship between cash and futures markets, input-output hedges, and spreads. Students also gain hands-on experience through a trading simulation.

Equivalent to: AREC 444

AEC 446. INTRODUCTION TO APPLIED ECONOMETRICS. (4 Credits)

Introduces students to applied econometrics: the use of statistical techniques to estimate and test economic relationships. Topics include multiple regression models, multicollinearity, and simultaneous equations. The applications and labs will focus on econometric analysis of real world problems pertaining to issues in environmental, food, and resource economics and policy. Lec/lab.

Prerequisites: AEC 311 with D- or better and ST 351 [D-]

AEC 447. AGRICULTURAL PRICE AND MARKET ANALYSIS. (4 Credits)

Price determination for food and agricultural commodities; development of quantitative economic models that explain and predict prices and other market outcomes. Lec/lab.

Equivalent to: AREC 447

Recommended: AEC 311 and ST 351

AEC 448. ADVANCED TOPICS IN ENVIRONMENTAL AND RESOURCE ECONOMICS. (3 Credits)

Explores advanced applications of environmental and resource economics to selected policy and management concerns in the PNW and globally. Attention will be directed to the methodological underpinnings of environmental and resource policies and instruments using case studies on real world management issues.

Prerequisites: AEC 311 with D- or better and AEC 351 [D-] and AEC 352 [D-]

Equivalent to: AREC 448

AEC 452. MARINE ECONOMICS. (3 Credits)

Economic aspects of marine resource utilization and management will be analyzed. Topics include open access aspect of marine resources; conflict and allocation of marine resources, marine resource markets, marine recreation, pollution, and aquaculture, with special emphasis on commercial fisheries.

Prerequisites: AEC 351 with D- or better or AEC 352 with D- or better or AREC 351 with D- or better or AREC 352 with D- or better

Equivalent to: AREC 452

AEC 453. CONSERVATION ON PRIVATE LAND. (3 Credits)

Explore and experience the increasingly popular phenomenon of conservation on private land. This exploration includes the explosive growth of land trusts and the use of conservation easements to restrict the use of private land and often promote ecological goals.

AEC 454. RURAL DEVELOPMENT ECONOMICS AND POLICY. (3 Credits)

Learn economic and regional development conceptual frameworks. Explore U.S. rural development and government interventions. Discuss differing popular local strategies for development that emphasize building current assets like local entrepreneurship to attracting resources and incomes from outside the region like amenity migration and tourism.

Equivalent to: AREC 454

AEC 460. CAPITAL INVESTMENT ANALYSIS USING AGBIZ LOGIC. (3 Credits)

Learn and understand the important factors in measuring the impacts of implementing technologies and/or conservation practices, adding value to products, or changing cropping systems or livestock enterprises. The AgBiz Logic™ software programs will be used to apply financial and economic principles to better understand and reduce the financial, production, marketing, and human resource risks facing agribusinesses.

Equivalent to: AREC 460

AEC 461. ^AGRICULTURAL AND FOOD POLICY ISSUES. (4 Credits)

Principles of agricultural and food policy formulation; agricultural adjustment processes; agricultural price and income policies in relation to land use, water, and rural development policies; interrelationships among U.S. and foreign agriculture and trade policies. (Writing Intensive Course)

Attributes: CWIC – Core, Skills, WIC

Prerequisites: (AEC 250 with D- or better or AREC 250 with D- or better or ECON 201 with D- or better or ECON 201H with D- or better) and (AEC 300 [D-] or AREC 300 [D-] or AEC 311 [D-] or AREC 311 [D-] or ECON 311 [D-])

Equivalent to: AREC 461

AEC 465. AGRICULTURAL AND FOOD FINANCIAL MANAGEMENT. (4 Credits)

Students will develop risk management strategies utilizing the AgBiz Logic program to reduce the financial, production, marketing, and human resource risks facing agribusinesses. This course is designed to help students apply financial and economic principles to business decisions under diverse and changing circumstances. The course reviews basic financial reporting statements, details accounting and financing practices specific to agricultural and food enterprises.

Prerequisites: (AEC 211 with D- or better or AREC 211 with D- or better) and AEC 311 [D-]

Equivalent to: AREC 465

AEC 466. AGRICULTURAL AND FOOD MARKETING MANAGEMENT. (4 Credits)

Principles, trends, issues, barriers, policies, strategies and decisions involved in domestic and international marketing of perishable and storable agricultural commodities and food products from the point of production to the point of consumption. Topics include firm-level marketing concepts, the integration of marketing with firms' overall strategic management goals, as well as comparative studies across multiple outlets for agricultural and food products, to include local, regional, and global markets.

Prerequisites: AEC 221 with D- or better and (AEC 250 [D-] or AEC 251 [D-] or ECON 201 [D-])

AEC 475. WRITING BUSINESS PLANS: AGRICULTURE/FOOD-RELATED ENTERPRISES. (2 Credits)

Students choose an enterprise and write a comprehensive business plan that describes the business vision, marketing plan, financial projections, risk management, and implementation strategy. At the end of term selected students present their plan to a commercial lender.

Equivalent to: AREC 475

Recommended: AEC 211 and AEC 221

AEC 499. SPECIAL TOPICS. (1-16 Credits)

Various topics in agricultural and resource economics of special and current interest not covered in other courses.

Equivalent to: AREC 499

This course is repeatable for 16 credits.

AEC 501. RESEARCH AND SCHOLARSHIP. (1-16 Credits)

Equivalent to: AREC 501

This course is repeatable for 16 credits.

AEC 502. INDEPENDENT STUDY. (1-16 Credits)

This course is repeatable for 16 credits.

AEC 503. THESIS. (1-16 Credits)

Equivalent to: AREC 503

This course is repeatable for 999 credits.

AEC 505. READING AND CONFERENCE. (1-16 Credits)

Equivalent to: AREC 505

This course is repeatable for 16 credits.

AEC 506. SPECIAL PROJECTS. (1-16 Credits)

This course is repeatable for 16 credits.

AEC 507. SEMINAR. (1-16 Credits)

Equivalent to: AREC 507

This course is repeatable for 16 credits.

AEC 508. WORKSHOP. (1-16 Credits)

Equivalent to: AREC 508

This course is repeatable for 16 credits.

AEC 512. MICROECONOMIC THEORY I. (4 Credits)

Fundamental topics in microeconomic theory. Topics include utility maximization and consumer demand, profit maximization and the theory of the firm, and labor and capital markets.

Recommended: AREC 312 and MTH 252

AEC 513. MICROECONOMIC THEORY II. (4 Credits)

Emphasizes principles for microeconomic theory at the master's level. Builds upon the foundations covered in AEC 512, and extends the theory and principles to cover uncertainty, game theory, competitive market equilibrium and welfare analysis, imperfect competition, and market failures. Primary emphasis is on understanding microeconomic theory and the underlying assumptions, and how it is applied to real world settings.

Prerequisites: AEC 512 with C or better

AEC 521. ECONOMICS OF RURAL POVERTY AND THE U.S. SOCIAL SAFETY NET. (4 Credits)

Examines the geography of poverty in the United States and the "social safety net" that the U.S. has constructed to reduce poverty and its negative effects. Understand the geographical consequences of federal policies and the challenges of providing social safety net programs in rural areas. CROSSLISTED as RS 521.

Equivalent to: AREC 521, RS 521

AEC 525. APPLIED ECONOMETRICS. (4 Credits)

General principles of applied econometric research are emphasized, including model building, data analysis, hypothesis testing, and evaluation and interpretation of results. A variety of estimators are applied to real data, including least squares, panel data, simultaneous equations, discrete choice, and limited dependent variable models.

AEC 532. ENVIRONMENTAL LAW. (4 Credits)

Legal relationships arising out of rights to air, water, and rights to air, water, and land. The impact of federal and state regulation on pollution control and on the production, use, and disposal of hazardous materials.

Equivalent to: AREC 532

AEC 534. ENVIRONMENTAL AND RESOURCE ECONOMICS. (3 Credits)

Examines environmental and natural resource issues emphasizing the role of economics in understanding their causes, consequences, and potential solutions (e.g., air, water, fish, forests, climate change, biodiversity). Reviews welfare economics, market failures, externalities, property rights. Covers non-market valuation, innovative market and regulatory policies.

Equivalent to: AREC 534

Recommended: AEC 311 or AREC 311

AEC 540. THE ECONOMICS OF BUSINESS ORGANIZATION IN THE FOOD SYSTEM. (4 Credits)

Application of economic analysis to questions related to the choice of an appropriate form of business organization for a wide variety of food system enterprises. Topics include costs of contracting, costs of ownership, enterprise scope and scale, and the dynamics of business ownership and structure. Particular emphasis is given to entrepreneurial enterprises and cooperative businesses in the food system.

Recommended: AEC 311 or ECON 311

AEC 543. INTERNATIONAL TRADE. (4 Credits)

Introduction to the major theories of international trade and to models that are useful for applied policy and regional analysis. Effects of trade and trade policy on consumers, workers, and firms are emphasized.

Prerequisites: AEC 513 with C or better

Equivalent to: AREC 543

AEC 544. COMMODITY FUTURES AND OPTIONS MARKETS. (4 Credits)

Provides an overview of the basic concepts needed to use commodity futures and options markets to successfully manage price risk. To address the increasingly global economy in which commodity transactions occur, the course also includes financial futures such as interest rates and currencies. Specific topics covered include contract standardization, speculation and hedging, opening and closing of positions, and basis, i.e. the relationship between cash and futures markets, input-output hedges, and spreads. Students also gain hands-on experience through a trading simulation.

Equivalent to: AREC 544

AEC 546. INTRODUCTION TO APPLIED ECONOMETRICS. (4 Credits)

Introduces students to applied econometrics: the use of statistical techniques to estimate and test economic relationships. Topics include multiple regression models, multicollinearity, and simultaneous equations. The applications and labs will focus on econometric analysis of real world problems pertaining to issues in environmental, food, and resource economics and policy. Lec/lab.

Recommended: AEC 311 and ST 351

AEC 548. ADVANCED TOPICS IN ENVIRONMENTAL AND RESOURCE ECONOMICS. (3 Credits)

Explores advanced applications of environmental and resource economics to selected policy and management concerns in the PNW and globally. Attention will be directed to the methodological underpinnings of environmental and resource policies and instruments using case studies on real world management issues.

Recommended: AEC 311 and AEC 351 and AEC 352

AEC 550. ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS. (4 Credits)

Presents concepts, theories, and methods used in the economic analysis of environmental and natural resource issues. The emphasis is on the economics of environmental policies and the development of decision rules regarding the efficient use of natural resources.

Prerequisites: AEC 512 with C or better

Equivalent to: AREC 550

AEC 551. APPLICATIONS OF ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS. (4 Credits)

Applies and expands upon concepts, theories, and methods in environmental and natural resource economics introduced in AEC 550. Topics include non-market valuation, discounting, and benefit-cost analysis, as well as the role and importance of institutions, appropriate research methods, and the philosophical basis for normative judgments in economics.

Prerequisites: AEC 550 with C or better or AREC 550 with C or better

Equivalent to: AREC 551

AEC 552. MARINE ECONOMICS. (3 Credits)

Economic aspects of marine resource utilization and management will be analyzed. Topics include open access aspect of marine resources; conflict and allocation of marine resources, marine resource markets, marine recreation, pollution, and aquaculture, with special emphasis on commercial fisheries. CROSSLISTED as MRM 552 .

Equivalent to: AREC 552, MRM 552

Recommended: (AEC 351 or AEC 352 or AREC 351 or AREC 352)

AEC 553. CONSERVATION ON PRIVATE LAND. (3 Credits)

Explore and experience the increasingly popular phenomenon of conservation on private land. This exploration includes the explosive growth of land trusts and the use of conservation easements to restrict the use of private land and often promote ecological goals.

AEC 554. RURAL DEVELOPMENT ECONOMICS AND POLICY. (3 Credits)

Learn economic and regional development conceptual frameworks. Explore U.S. rural development and government interventions. Discuss differing popular local strategies for development that emphasize building current assets like local entrepreneurship to attracting resources and incomes from outside the region like amenity migration and tourism.

Equivalent to: AREC 554

AEC 560. CAPITAL INVESTMENT ANALYSIS USING AGBIZ LOGIC. (3 Credits)

Learn and understand the important factors in measuring the impacts of implementing technologies and/or conservation practices, adding value to products, or changing cropping systems or livestock enterprises. The AgBiz Logic™ software programs will be used to apply financial and economic principles to better understand and reduce the financial, production, marketing, and human resource risks facing agribusinesses.

Equivalent to: AREC 560

AEC 565. AGRICULTURAL AND FOOD FINANCIAL MANAGEMENT. (4 Credits)

Students will develop risk management strategies utilizing the AgBiz Logic program to reduce the financial, production, marketing, and human resource risks facing agribusinesses. This course is designed to help students apply financial and economic principles to business decisions under diverse and changing circumstances. The course reviews basic financial reporting statements, details accounting and financing practices specific to agricultural and food enterprises.

Equivalent to: AREC 565

Recommended: (AEC 211 or AREC 211) and AEC 311

AEC 566. AGRICULTURAL AND FOOD MARKETING MANAGEMENT. (4 Credits)

Principles, trends, issues, barriers, policies, strategies and decisions involved in domestic and international marketing of perishable and storable agricultural commodities and food products from the point of production to the point of consumption. Topics include firm-level marketing concepts, the integration of marketing with firms' overall strategic management goals, as well as comparative studies across multiple outlets for agricultural and food products, to include local, regional, and global markets.

Recommended: AEC 221 and (AEC 250 or AEC 251 or ECON 201)

AEC 599. SPECIAL TOPICS. (0-16 Credits)

Various topics in applied economics of special and current not covered in other courses. May be repeated for credit when topics differ.

Equivalent to: AREC 599

This course is repeatable for 16 credits.

AEC 601. RESEARCH AND SCHOLARSHIP. (1-16 Credits)

Equivalent to: AREC 601

This course is repeatable for 16 credits.

AEC 602. INDEPENDENT STUDY. (1-16 Credits)

Equivalent to: AREC 605

This course is repeatable for 16 credits.

AEC 603. THESIS. (1-16 Credits)

Equivalent to: AREC 603

This course is repeatable for 999 credits.

AEC 605. READING AND CONFERENCE. (1-16 Credits)

Equivalent to: AREC 605

This course is repeatable for 16 credits.

AEC 606. SPECIAL PROJECTS. (1-16 Credits)

This course is repeatable for 16 credits.

AEC 607. SEMINAR. (1-16 Credits)

Equivalent to: AREC 607

This course is repeatable for 16 credits.

AEC 608. WORKSHOP. (1-16 Credits)

Equivalent to: AREC 608

This course is repeatable for 16 credits.

AEC 611. ADVANCED MICROECONOMIC THEORY I. (4 Credits)

A rigorous development of the theory of consumption and production, with emphasis on duality.

Prerequisites: (AEC 512 with C or better and AEC 513 [C])

Recommended: MTH 254

AEC 612. ADVANCED MICROECONOMIC THEORY II. (4 Credits)

A rigorous extension of the theory of the consumer and firm to aggregate and heterogeneous populations, decision making under uncertainty, and related game theory concepts.

Prerequisites: AEC 611 with C or better

AEC 613. ADVANCED MICROECONOMIC THEORY III. (4 Credits)

A rigorous development of the theory of competitive equilibrium, market power, public goods, and information.

Prerequisites: AEC 612 with C or better

AEC 625. ADVANCED ECONOMETRICS I. (4 Credits)

Emphasizes the basic theory underlying the main types of estimators used in econometrics, as well as their application in empirical research. Includes derivation, properties, and application of method of moments, maximum likelihood, ordinary and generalized least squares, and instrumental variables estimators, statistical inference and hypothesis testing, and model building and specification analysis. Provides the necessary foundation for estimation techniques covered in AEC 626. Lec/lab.

Prerequisites: AEC 525 with C or better

AEC 626. ADVANCED ECONOMETRICS II. (4 Credits)

Extensions to the generalized linear regression model are considered: discrete choice, limited dependent variable, panel data, and simultaneous equations models, and new solutions to identification problems. Strong applied orientation, emphasizing problems of data measurement, model selection and specification.

Prerequisites: AEC 625 with C or better

AEC 627. COMPUTATIONAL ECONOMICS. (4 Credits)

Covers the numerical analysis of static optimization models and stochastic dynamic models in resource and development economics, emphasizing formulation, solution, and simulation of dynamic optimization, rational expectations, and arbitrage pricing models. Lec/lab.

AEC 640. SUSTAINABLE DEVELOPMENT. (3 Credits)

Surveys research on the quantitative economic analysis of sustainable development, with an emphasis on integrated assessment methods and models and their application to agriculture and rural development policy, agricultural technology impact assessment, and climate change impact assessment.

Prerequisites: AEC 611 with D- or better and AEC 612 [D-] and AEC 625 [D-]

Equivalent to: AREC 640

AEC 643. ADVANCED TOPICS IN DEVELOPMENT ECONOMICS. (3 Credits)

Introduces students to key issues in the economics of development and equips them with the theoretical and empirical tools required to conduct advanced research in these topics.

Prerequisites: AEC 613 with C or better and AEC 626 [C]

Equivalent to: AREC 643

AEC 651. ADVANCED NATURAL RESOURCE ECONOMICS. (3 Credits)

Contemporary economic theory of dynamic natural resource allocation is introduced. Assignments focus on analytical and numerical methods for solving dynamic optimization problems in resource and environmental management. Lecture and readings emphasize current research trends in the field and relevant advances in quantitative methodology.

Prerequisites: AEC 611 with C or better

Equivalent to: AREC 651

AEC 652. ADVANCED ENVIRONMENTAL ECONOMICS. (3 Credits)

Interrelationships of natural resource use and the environment; applied welfare and benefit-cost analysis; externalities and pollution abatement; non-market valuation of resources; property rights; legal and social constraints; policy approaches.

Prerequisites: (AEC 513 with C or better or AREC 513 with C or better) and (AEC 525 [C] or AREC 525 [C])

Equivalent to: AREC 652

AEC 653. EMPIRICAL ENVIRONMENTAL AND RESOURCE ECONOMICS. (3 Credits)

Introduces empirical methods at the current frontiers of research in environmental and resource economics. General topics may include the identification of non-market values, revealed and stated preference methods, environmental policy evaluation, equilibrium sorting models, and climate econometrics.

Prerequisites: AEC 513 with C or better and AEC 525 [C]

Equivalent to: AREC 653

AEC 699. SPECIAL TOPICS. (1-16 Credits)

Various topics in applied economics of special and current interest not covered in other courses.

Equivalent to: AREC 699

This course is repeatable for 16 credits.