AGRICULTURAL ECONOMICS AND AGRICULTURAL BUSINESS

Undergraduate Program Information
Specific courses meeting these and the university general education requirements are included for each major. A total of 120 credits are required for graduation. At least 48 credits must be at the 300+ level. You will develop schedules for specific semesters with the help of your academic advisor.

Graduate Program Information
The Department of Agricultural Economics and Agricultural Business cooperates with the Department of Economics, Applied Statistics, and International Business and the College of Business to offer graduate programs in agricultural economics and economics and a Master of Business Administration with specialization in Agribusiness. The programs are jointly administered by faculty from the two colleges. Graduate degrees include

- a Master of Science in agricultural economics,
- a Master of Agriculture with an agribusiness emphasis, and
- an MBA degree with specialization in agribusiness.

The objectives of the three programs differ in emphasis. The two departments also offer a doctoral program, Doctor of Economic Development.

- Master of Agriculture (MAG-AB) with Specialization in Agribusiness provides students with backgrounds or interests in agriculture with graduate-level training in agribusiness and applied economics. It is a degree alternative for individuals holding undergraduate degrees in various agricultural and food science fields.
- Master of Business Administration with Specialization in Agribusiness (MBA-AB) prepares students for business and public sector careers in agriculture and the food and fiber industry. Graduates from this program are knowledgeable about U.S. and international food and fiber sectors and hold an AACSB International accredited MBA degree.
- Master of Science (MS) in Agricultural Economics program provides rigorous training in economic theory, applied economic analysis and quantitative methods and is designed to prepare students for professional careers in business, government, research, and for continued education in pursuit of a Ph.D.
- Doctor of Economic Development (DED) is a professional doctorate designed to provide advanced training for economic development professionals. It is not designed to prepare graduates for academic careers.

All students in these programs must meet the requirements specified in the general regulations and requirements for admission to the Graduate School and to candidacy. To transfer between the program options requires a change of major form be submitted through the Graduate School and approved by the program to which the application is made.

Teaching and research assistantships are available to qualified applicants on a competitive basis. It is not necessary to have a degree in economics or agricultural economics to enter the graduate program or to qualify for a teaching or research assistantships. An application and three letters of reference are required to be considered for any available assistantships. These forms can be obtained from the department.

Degrees for the Department
Agricultural Economics and Business - Bachelor of Science in Agriculture (http://catalogs.nmsu.edu/nmsu/agricultural-consumer-environmental-sciences/agricultural-economics-business/agricultural-economics-business-bachelor-science-agriculture)
Agriculture - Master of Agriculture (http://catalogs.nmsu.edu/nmsu/agricultural-consumer-environmental-sciences/agricultural-economics-business/agriculture-master-agriculture)
Agriculture - Master of Business Administration (http://catalogs.nmsu.edu/nmsu/agricultural-consumer-environmental-sciences/agricultural-economics-business/agriculture-master-business-administration)
Agricultural Economics - Master of Science (http://catalogs.nmsu.edu/nmsu/agricultural-consumer-environmental-sciences/agricultural-economics-business/agricultural-economics-master-science)

Minors for the Department

Professor, Jay Lillywhite, Department Head

Professors Gorman, Gutierrez, Hawkes, Hurd, Libbin, Lillywhite, Ward
Associate Professors Acharya, Patrick;
Assistant Professors McNelis
College Professors Bullock; Townsend
College Assistant Professor Robinson

Department of Agricultural Economics and Agricultural Business:
J. Lillywhite, Department Head, Ph.D. (Purdue) - agribusiness management and marketing; R.N. Acharya, Ph.D. (Auburn) - food safety, logistics management, technology adoption, and marketing; T. L. Crawford, Ph.D. (Emeritus) Cornell) - marketing, policy and pricing, quantitative methods, trade; J.M. Fowler, Ph.D. (Emeritus) (Iowa State) - forestry and range economics; W. D. Gorman, Ph.D. (Emeritus) (Oregon State) - agricultural business management, international marketing; P. Gutierrez, Ph.D. (Oklahoma State) - extension, ranch economics, economic development; J. Hawkes, Ph.D. (New Mexico State) - extension, range management; B. H. Hurd, Ph.D.
AG E 210G. Survey of Food and Agricultural Issues
3 Credits
Survey of food and agricultural issues, including: geography of food production and consumption; human-agricultural-natural resource relations; agriculture in the United States and abroad; modern agribusiness; food safety; food, agriculture, and natural resources policy; ethical questions; role and impact of technology. Crosslisted with: FSTE 210G.

AG E 236. Principles of Food and Agribusiness Management
3 Credits
Description and application of management and financial principles, market planning, and organization theory in small business situations. May be repeated up to 3 credits.

AG E 250. Technology and Communication for Business Management
3 Credits (2+2P)
Understanding and improving skills for data analysis, information management and communication is the focus of this course. Drawing examples from a variety of management, business, technological and research situations, students discover the versatility and variety of uses of computer applications such as spreadsheet, database, presentation and document software. Emphasizing a ‘hands-on’ approach students learn the foundations of these tools and their use.

AG E 260. Introduction to Food and Agribusiness Accounting
3 Credits
Purpose and methods of keeping and analyzing farm and ranch records. Net worth and income statements, efficiency measures, analysis of the business, and tax computations. May be repeated up to 3 credits.

AG E 300. Internship
1-4 Credits (1-4)
Professional work experience under the supervision of a faculty member. May be repeated up to 6 credits. Consent of Instructor required. S/U Grading (S/U, Audit). Restricted to Las Cruces campus only. Prerequisite(s): Consent of instructor.

AG E 305. Marketing and Food Agricultural Products
3 Credits
Description of agricultural processes and functions; food production and consumption patterns; agricultural product prices; nature of competition in agricultural product markets; commodity markets. May be repeated up to 3 credits. Crosslisted with: MKTG 305. Prerequisite(s): ECON 201G or ECON 252G.

AG E 311. Financial Futures Markets
3 Credits
Emphasis on financial instruments, currencies, and stock index futures. Principles of hedging, arbitrage, speculation, technical and fundamental price analysis, and trading strategies. Simulated computer trading game. Same as AECC/FIN 511 with additional coursework required at the graduate level. Cannot receive credit for both AG E/FIN 311 and AECC/FIN 311. Same as FIN 311.

AG E 313. Food and Agricultural Sales
3 Credits
Techniques of salesmanship including application of sales techniques. Identification and classification of buyer type and different approaches to sales based on client base. Improving oral communication skills through individual and/or group sales presentations. May be repeated up to 3 credits. Prerequisite(s): Junior or above standing.
AG E 314. Agricultural and Natural Resource Law
3 Credits
Relationship of common-law principles, statutory law and regulatory law to problems involving agriculture with an emphasis on New Mexico issues. Legal problems relevant to agribusiness, torts, fencing laws, liability for agricultural pollution, irrigation water rights, corporations and partnerships, land tenure, farm and ranch tenancy, agricultural labor, farm and ranch management and taxation. May be repeated up to 3 credits.

AG E 315V. World Agriculture and Food Problems
3 Credits
Survey of food and agricultural issues in the U.S. and other countries. Covers: role of agriculture in economic development; trade in food and agricultural products; global food production, consumption, and marketing patterns; economics of technical change and food assistance; agriculture and the environment. Same as GEOG 315V.

AG E 325. Food and Agribusiness Finance and Planning
3 Credits
Understanding, using, and constructing financial statements for agribusiness analysis. Learn how to produce integrated pro forma financial statements first on paper and then on a spreadsheet. Prepare and link revenue, cost, and financing input assumptions formulas to the financial outcomes on the spreadsheet. May be repeated up to 3 credits. Crosslisted with: ANSC 325.
Prerequisite(s): AG E 250 or equivalent experience using spreadsheets.

AG E 337V. Natural Resource Economics
3 Credits
Gain insight into important natural resource problems of our time. Apply economic principles to problems in the preservation, use, and development of agricultural, range, mineral, water, forestry, fishery, and environmental resources. Understand the use of cost-benefit analysis for government natural-resource projects, policies, and programs. Same as ECON 337V.
Prerequisite: ECON 201G or ECON 252G.

AG E 340. Economics of Food and Agricultural Markets
3 Credits
Focuses on the analysis of supply and demand characteristics of commodities with particular attention to agricultural products. Pays special attention to empirical analysis. Includes institutional aspects of pricing, temporal and spatial price relationships, price forecasting, and the economic consequences of pricing decisions. May be repeated up to 3 credits.
Prerequisite(s): ECON 252G, MATH 142G, and A ST 311 or A ST/STAT 251G.

AG E 342. Economic Analysis of Food and Agribusiness
3 Credits
A discussion and application of economic, managerial, and financial considerations in agricultural business. May be repeated up to 3 credits.
Prerequisite(s): ECON 251G, ECON 252G.

AG E 384V. Water Resource Economics
3 Credits
Use of economic principles to evaluate current and emerging issues in water resources. Applications focus on use of economic methods of analysis to current policy decisions surrounding agricultural, municipal, industrial, and environmental uses of water. Same as ECON 384V.
Prerequisite: AG E 100 or ECON 252G.

AG E 385. Applied Production Economics
3 Credits
Analysis of economic principles of agricultural production and planning, emphasizing marginal principles. Practical application in budgeting and analyzing profit maximizing agricultural-production strategies. May be repeated up to 3 credits.
Prerequisite(s): ECON 252G, MATH 142G, and A ST 311 or A ST/STAT 251G.

AG E 400. Seminar
1 Credit
Prerequisite(s): Senior standing.

AG E 406. The Economics of Sports
3 Credits
Applying the tools of economic analysis to a particular industry and gaining an in-depth knowledge of the interaction of professional sports teams and leagues with the economy and society. Same as ECON 406.

AG E 420. Special Problems
1-3 Credits
Special problems in agricultural economics or agricultural business of particular interest to the individual student. Maximum of 3 credits per semester. No more than 6 credits toward degree. Consent of instructor required.

AG E 425. Food and Agribusiness Financial Management
3 Credits
Description and application of techniques and principles of financial management to problem situations faced by agricultural businesses, including financial statement development and analysis, capital budgeting, sources and costs of capital. May be repeated up to 3 credits.
Prerequisite(s): ECON 252G and ACCT 221.

AG E 440. Ranch Economics
3 Credits
Economic principles related to western ranch business. Business management, economic characteristics of ranches, ranch land problems and values, and economics of rangeland use.
Prerequisite: ECON 201G or ECON 252G.

AG E 445V. Agricultural Policy
3 Credits
Historical and cultural background of food and agricultural policy in the United States. Analysis of food and agricultural problems, policy-making and implementation. Economic evaluation of specific U.S. food and agricultural policy instruments, their domestic and international impacts.
Prerequisites: ECON 251G and ECON 252G.

AG E 450. Spreadsheet Applications in Food and Agriculture
3 Credits (2+2P)
An advanced course in electronic spreadsheets and the concepts and tools of database management emphasizing agricultural application. Same as AEEC 550 with additional work for graduate credit. Cannot receive credit for both AG E 450 and AEEC 550. May be repeated up to 3 credits.
Prerequisite(s): AG E 250 or consent of instructor.
AG E 451. Food and Agribusiness Market Assessment and Research
3 Credits
Applications course in which self-managed teams develop and present marketing plans for agribusiness firms. Emphasis on integrating the marketing mix, particularly promotional elements. May be repeated up to 3 credits. Crosslisted with: MKTG 451.
Prerequisite(s): AG E 305 or MKTG 305 or consent of instructor.

AG E 452. Food and Agribusiness Market Plan Development
3 Credits
This course focuses on learning marketing research methods applicable to developing new food and agricultural products and repositioning existing products for new markets. Students will be required to prepare precise written and oral marketing plans to industry standards and will have opportunities to present written and oral plans at national competitions. May be repeated up to 3 credits.

AG E 456. Case Studies in Food and Agribusiness Management
3 Credits
Integration of production, marketing, accounting, finance, agricultural policy, human behavior, and business environment concepts in management of agricultural businesses using a decision case approach. May be repeated up to 3 credits.
Prerequisite(s): Senior standing.

AG E 458. Economics of Making and Marketing Wine
3 Credits
Economics of making and marketing wine for small commercial wineries and amateurs. The class starts with selecting, crushing, and fermenting grapes and all the steps required through bottling the wine. Students must be 21 to enroll in the class. Consent of instructor required.

AG E 470. Real Estate Appraisal
3 Credits (2+2P)
This course addresses issues influencing the value of real estate with some emphasis upon rural properties. Topics include courthouse records, property taxes, appraisal methodology, expert courtroom testimony, condemnation, and legal issues. Students will take field trips and write appraisals. Course material is relevant to students in Finance, Accounting, and Pre-Law, as well as Agriculture. Accredited for hours to apply to both pre-licensing and continuing education requirements of the New Mexico Real Estate Commission for both Appraisers and Real Estate Brokers. Crosslisted with: FIN 470
Prerequisite(s): Junior or above standing.

AG E 499. Senior Thesis
3 Credits
Develop a thesis project with a faculty advisor. The senior thesis requires students to work creatively to apply business and economic principles to address a problem of concern. Restricted to AEAB majors.
Prerequisites: consent of department head and have senior standing.

Agricultural Economics (Graduate)

AEEC 501. Microeconomic Theory
3 Credits
A rigorous re-examination of the pricing mechanism in the goods and factor markets. Development of theoretical tools of general applicability. Prerequisite(s): ECON 371 and ECON 457, or consent of instructor.

AEEC 502. Macroeconomic Theory
3 Credits
Contemporary aggregative theory regarding the interrelationships among national income, employment, the price level, money supply and interest rates, and implications of this theory for public policy in a mixed economy.

AEEC 511. Advanced Futures and Options Markets
3 Credits
Advanced hedging and speculating strategies using futures and options contracts. Coverage includes interest rates, stock indexes, metals, currencies, livestock, and grains. Concepts of price analysis (technical and fundamental) and basis analysis; technical paper is required. Same as AG E/FIN 311 with additional coursework required at the graduate level. Cannot receive credit for both AG E/FIN 311 and AEFC/FIN 311. Crosslisted with: FIN 511.

AEEC 520. International Agricultural Trade Theory and Policy
3 Credits
Review and analysis of international trade models. Analysis of the effects of trade instruments such as tariffs, quotas, and subsidies on welfare and income distribution. Analysis of bilateral, regional, and multilateral trade agreements and their effect on the agricultural sector from both country-specific and global perspectives.
Prerequisite: ECON 371.

AEEC 522. Public Sector Economics I
3 Credits
Introduction to the economic rationale for government intervention in the economy and the effects of that intervention on economic agents and the economy in general. Emphasis on the expenditure side of government policies. Same as GOVT 522.

AEEC 523. Public Sector Economics II
3 Credits
A continuation of AECC 522. Concentrates on the economic effects of taxation. Same as GOVT 523.

AEEC 526. Global Food Supply Chain Management
3 Credits
This course aims to provide students a basic understanding of supply chain management issues, and encourages them to analyze problems from a systems perspective, and introduce them to a number of decision tools that are currently being used by the industry such as process analysis, product design, waiting line management, quality control, just-in-time, and inventory management.

AEEC 528. Economic Development
3 Credits
A graduate-level exposition of microeconomic and macroeconomic theory of why and how nations allocate resources to grow and develop. Strong emphasis is given to understanding the economic problems facing developing nations.

AEEC 540. Econometrics I
3 Credits
An integration of quantitative and statistical techniques for research and management in economics and business.
Prerequisite(s): ECON 457 and ECON 405 or A ST 505.

AEEC 545. Advanced Agricultural Policy
3 Credits
Historical and cultural background of food and agricultural policy in the United States. Analysis of food and agricultural problems, policy-making and implementation. Economic evaluation of specific U.S. food and agricultural policy instruments, their domestic and international impacts. Same as AG E 445V with additional work required at the graduate level. Cannot receive credit for both AG E 445V and AEFC 545. Prerequisite: consent of instructor.
AEEC 550. Advanced Microcomputer Applications in Agriculture
3 Credits (2+2P)
An advanced course in electronic spreadsheets and the concepts and tools of database management emphasizing agricultural applications. Taught with AG E 450 with additional coursework required at the graduate level. Cannot receive credit for both AG E 450 and AEEC 550.
Prerequisite(s): AG E 250G or consent of instructor.

AEEC 551. Advanced Agribusiness Marketing
3 Credits
Applications course in which self-managed teams apply marketing theory in the development and presentation of marketing plans for food and agribusiness firms. Course includes analysis of marketing problems with emphasis on strategic marketing issues changing trade policies, and global competitiveness.
Prerequisite: consent of instructor.

AEEC 556. Advanced Agribusiness Management
3 Credits
Integration of production, marketing, accounting, finance, agricultural policy, human behavior, and business environment concepts in management of agricultural businesses using a decision case approach.

AEEC 575. Economics of Water Resource Management and Policy
3 Credits
Focuses on issues, approaches and methods used in the assessment of water resource management and policy problems. Extends and further develops student understanding and comprehension of specific economic concepts and methods that are useful in the assessment and management of water resources, including cost-benefit analysis, welfare economics, non-market valuation, watershed management, and consideration of equity and ethical concerns. Students will develop critical reasoning, communication and analytic skills through active class discussions and assignments that emphasize both quantitative and written products. May be repeated up to 3 credits.

AEEC 585. Production Economics
3 Credits
Application of microeconomic theory to problems and decisions of food and agricultural firms. The theoretical foundation of production economics and the theory of the firm are developed.
Prerequisites: MATH 142G, ECON 371, and ECON 457.

AEEC 590. Special Topics
3 Credits
Seminars in selected current topics in the various areas of agricultural economics and economics. Offerings will carry a subtitle.
Prerequisite: consent of instructor.

AEEC 593. Internship
1-6 Credits
Supervised professional on-the-job training experience in policy analysis.

AEEC 594. Internship
1-6 Credits
One semester to six months internship with a regulated firm or public utility commission. A faculty member will direct and evaluate the internship. For AEEC regulatory option students only.

AEEC 595. Internship
3 Credits
Supervised professional on-the-job learning experience.
Prerequisite(s): Consent of instructor.

AEEC 596. Individual Study
1-3 Credits
Individual study programs. Each offering will carry a subtitle. Maximum of 3 credits in a semester and 6 credits in a program.
Prerequisite: consent of instructor.

AEEC 597. Non-Thesis Research Project
1-3 Credits (1-3)
Individual investigations, either analytical or experimental. Maximum of 3 credits per semester. No more than 3 credits toward a degree.

AEEC 598. Creative Component Project
3-6 Credits (3-6)
Individual investigations, either analytical or experimental. A minimum of 3 to 6 credits per semester. No more than 6 credits toward degree. Consent of instructor required. Restricted to AEEC majors.
Prerequisite(s): Consent of Instructor.

AEEC 599. Master's Thesis
15 Credits
Thesis.
Name: Dr. Jay Lillywhite
Office Location: GT Room 387
Phone: (575) 646-3215
Website: http://www.aeab.nmsu.edu