Agricultural Economics (AGEC)

Courses

AGEC 1103. Principles of Agricultural Microeconomics. 3 Hours.
Introduction to agricultural economics, including a survey of the role and characteristics of agriculture businesses in our economic system. Basic economic concepts concerning price determination, profit maximization, and resource use are emphasized. The use of economic principles as applied to the production and marketing decisions made by managers of agricultural firms is demonstrated. Credit will be allowed for only one of AGEC 1103 or ECON 2023 or ECON 2023H. Pre- or Corequisite: MATH 1203.
This course is cross-listed with ECON 2023.

AGEC 1103H. Honors Principles of Agricultural Microeconomics. 3 Hours.
Introduction to agricultural economics, including a survey of the role and characteristics of agriculture businesses in our economic system. Basic economic concepts concerning price determination, profit maximization, and resource use are emphasized. The use of economic principles as applied to the production and marketing decisions made by managers of agricultural firms is demonstrated. Credit will be allowed for only one of AGEC 1103 or ECON 2023 or ECON 2023H. Pre- or Corequisite: MATH 1203.
This course is cross-listed with ECON 2023.

AGEC 2103. Principles of Agricultural Macroeconomics. 3 Hours.
Applications of economics principles to problems of agricultural production, distribution, and income; including a study of the interrelationship between agriculture and other segments of the economy; and the dynamic forces in the economy which affect agriculture. Credit will be allowed for only one of AGEC 2103 or AGEC 2103H or ECON 2013 or ECON 2013H. Pre- or Corequisite: MATH 1203.
This course is cross-listed with ECON 2013.

AGEC 2103H. Honors Principles of Agricultural Macroeconomics. 3 Hours.
Applications of economics principles to problems of agricultural production, distribution, and income; including a study of the interrelationship between agriculture and other segments of the economy; and the dynamic forces in the economy which affect agriculture. Credit will be allowed for only one of AGEC 2103 or AGEC 2103H or ECON 2013 or ECON 2013H. Pre- or Corequisite: MATH 1203.
Prerequisite: Honors standing.
This course is cross-listed with ECON 2013, AGEC 2103.

AGEC 2141L. Agribusiness Financial Records Lab. 1 Hour.
A computer lab section for the AGEC 2142 Agribusiness Financial Records class is required to teach students accounting software and spreadsheet applications related to financial record keeping. Corequisite: AGEC 2142. Prerequisite: AGME 2903 or ISYS 1120 or ISYS 1123 and AGEC 1103 or ECON 2023 or ECON 2143.

AGEC 2142. Agribusiness Financial Records. 2 Hours.
Principles of small agricultural business management accounting practices are taught to allow students to gain hands-on experience with financial record keeping for a business. Resulting financial statements are analyzed to determine opportunities for enhancing financial efficiency. Corequisite: AGEC 2141L. Prerequisite: AGME 2903 or ISYS 1120 or ISYS 1123 and AGEC 1103 or ECON 2023 or ECON 2143.

AGEC 2303. Introduction to Agribusiness. 3 Hours.
Introduction to agribusiness issues as they relate to the food processing, wholesale and retail sectors of the agricultural industry. Coverage of methods and tools agribusiness managers use to evaluate business opportunities. Case studies serve to communicate concepts of product distribution, design, promotion and pricing in the development of a marketing plan. Prerequisite: AGEC 1103 or ECON 2023.

AGEC 2403. Quantitative Tools for Agribusiness. 3 Hours.
Introduction to quantitative methods used in agricultural economics and agribusiness with an emphasis on skills and techniques that will enhance the ability of students to perform in upper division coursework. Provides an overview of statistical and optimization methods used in research problems, economic theory, and applied decision making activities. Prerequisite: (AGEC 1103 or ECON 2023 or ECON 2143) and (MATH 2043 or MATH 2053).

AGEC 3303. Food and Agricultural Marketing. 3 Hours.
Surveys consumer trends in food markets and the marketing activities of the food and fiber system. Emphasizes marketing concepts for both commodities and differentiated food products. Topics include applied consumer and price theory; marketing management; structure and performance of the food system; and current agricultural marketing topics. Prerequisite: AGEC 1103 or ECON 2023 or ECON 2143.

AGEC 3313. Agribusiness Sales. 3 Hours.
Principles of professional sales and sales management techniques used in food and agricultural firms; develop a professional sales presentation; study current agribusiness industry professional sales persons and sales practices and techniques. Corequisite: Drill. Prerequisite: AGEC 1103 or AGEC 2103 or ECON 2013 or ECON 2023 or ECON 2143 or equivalent.

AGEC 3373. Futures and Options Markets. 3 Hours.
Theory and mechanics of commodity futures and options markets including trading, margin, fees, etc. Price relationships between cash, futures and options. Fundamental and technical price analysis. Price risk management strategies for producers and users of agricultural commodity marketing plan. Speculative and hedging simulation exercises. Prerequisite: AGEC 1103 or ECON 2023.

AGEC 3403. Farm Business Management. 3 Hours.
Application of economic principles for the profitable organization and operation of the farm business. Focuses upon agricultural production management decision-making tools: budgeting techniques (enterprise, partial, cash flow), balance sheet, income statement, cash flow, investment analysis and risk management. Recommended: AGEC 1103 (or ECON 2023), AGEC 2142, and AGME 2903.

AGEC 3413. Principles of Environmental Economics. 3 Hours.
An introductory, issues-oriented course in the economics of the environment. The course will focus on what is involved in how society makes decisions about environmental quality. The environmental issues important to the State of Arkansas and the United States will be emphasized. Prerequisite: AGEC 1103 or ECON 2023. This course is cross-listed with ENSC 3413.

AGEC 3413H. Honors Principles of Environmental Economics. 3 Hours.
An introductory, issues-oriented course in the economics of the environment. The course will focus on what is involved in how society makes decisions about environmental quality. The environmental issues important to the State of Arkansas and the United States will be emphasized. Corequisite: Drill component. Prerequisite: AGEC 1103 or ECON 2023. This course is cross-listed with AGEC 3413, ENSC 3413.

AGEC 3503. Agricultural Law I. 3 Hours.
Examination of those areas of law especially applicable to agriculture. Fundamentals of contract law, torts law, and property law will accompany discussion of major areas of agricultural law; acquisition and disposal of farmland; farm tenancies; rights and limitations in the use and ownership of farmland; water law; environmental protection; protection of the productivity of agricultural land; and the law of sales and secured transactions in an agricultural context.

AGEC 3523. Environmental and Natural Resources Law. 3 Hours.
Principles of environmental and natural resources law relevant to agriculture, food and the environmental sciences; legal principles relating to regulation of water, air, hazardous substances, land, wildlife, livestock, and water rights. Principles of civil and criminal liabilities and other developing legal and regulatory issues relating to agriculture and natural resources.
AGEC 400V. Special Problems. 1-6 Hour.
Special studies and readings conducted under the direct supervision of staff members to satisfy the requirements of individual students. May be repeated for up to 6 hours of degree credit.

AGEC 401V. Internship in Agribusiness. 1-6 Hour.
A supervised practical work experience in an agribusiness firm or a governmental or industrial organization having direct impact on agriculture in order to gain professional competence and insight to employment opportunities. Prerequisite: junior standing. May be repeated for up to 8 hours of degree credit.

AGEC 402V. Special Topics. 1-3 Hour.
Studies of selected topics in agricultural economics not available in other courses. May be repeated for degree credit.

AGEC 4113. Agricultural Prices and Forecasting. 3 Hours.
Price theory and techniques for predicting price behavior of general economy and price behavior of individual agricultural products will be analyzed. Provides practice in the application of economics and statistics to agricultural price analysis. Lecture 2 hours, laboratory 2 hours per week. Prerequisite: (AGEC 1103 or ECON 2023), AGEC 2403, AGST 4023 or STAT 2303 or WCOB 1033 and MATH 2053.

AGEC 4123. Legal Issues in Animal Agriculture. 3 Hours.
An issues-oriented course focusing on the legal issues involved in the production of poultry, swine and livestock. Emphasis will center on the laws, regulations and policy arguments involved in animal confinement, antibiotic use, humane slaughter and veterinary medicine, along with other related issues. The wide range of regulation from local to state to federal, depending on the issue will be studied and discussed. This course is cross-listed with ANSC 4123, POSC 4123.

AGEC 4143. Agricultural Finance. 3 Hours.
Methods and procedures whereby agricultural firms acquire and utilize funds required for their successful operation. Emphasis is placed upon role of finance and financial planning and consideration is given to an understanding of financial firms serving agriculture. Prerequisite: (AGEC 1103 or ECON 2023) and (AGEC 2103 or ECON 2013) and (AGEC 2142 or ACCT 2013 or WCOB 1023).

AGEC 4163. Agricultural and Rural Development. 3 Hours.
Examination of agricultural and rural development issues in less developed countries. Alternative agricultural production systems are compared, development theories examined, and consideration given to the planning and implementation of development programs. Prerequisite: AGEC 1103 or (ECON 2023).

AGEC 4303. Agribusiness Marketing Management. 3 Hours.
Marketing concepts will be developed and applied to the global food and fiber system. The course will use both commodity and product marketing principles and economic theory to analyze varied marketing situations. Case studies will be used to demonstrate the role that demand analysis and consumer behavior play in market management. Prerequisite: AGEC 2303 and AGEC 3303.

AGEC 4313. Agricultural Business Management. 3 Hours.
The planning, organizing, leading and controlling functions of management as they relate to agricultural business firms. Marketing of value-added products, budgeting, organizational structure, cost control, financial statements, capital budgeting and employee supervision and motivation. Case studies are used to teach communication and decision-making skills. Prerequisite: (AGEC 2142 and AGEC 2141L) or (ACCT 2103 and AGEC 2303 or equivalent).

AGEC 4323. Agribusiness Entrepreneurship. 3 Hours.
Agribusiness entrepreneurship is the process of bringing food or rural-based products and services from conceptualization to market. The course presents the opportunities, problems and constraints facing individuals and firms operating in rural or isolated markets while emphasizing the steps in conceptualization, development, marketing, and delivery-selling of agribusiness rural products. Prerequisite: AGEC 1103 or equivalent.

This course provides students an opportunity to gain a detailed working knowledge of how basis trading concepts and practices are applied to agricultural markets and to develop a skill set that can be put immediately into practice in any basis trading operation. Prerequisite: AGEC 3373 or consent of instructor.

AGEC 4383. Basis Trading: Case Study. 3 Hours.
This course provides an opportunity to apply principles learned in AGEC 4373 to grain merchandising using the case study approach. The course will involve in-class meetings supplemented with faculty-directed group-based learning experiences involving professional grain merchandisers. Group activities will follow the traditional case study method. Prerequisite: AGEC 4373.

AGEC 4403. Advanced Farm Business Management. 3 Hours.
Principles and procedures of decision making as applied to the allocation of resources in the farm business for profit maximization. Emphasis is placed on use of principles of economics and their application to the decision making process. Includes exercises on the application of principles to specific farm management problems. Prerequisite: AGEC 3403 and AGME 2903 or equivalent.

AGEC 4603. Food Economics and Health. 3 Hours.
This course provides an advanced overview of selected topics in food economics, food and nutrition policy and the interface between nutrition programs and health policy. Students will develop an understanding of economic and policy concepts of food, nutrition, and health. The course emphasizes analytical tools that can be applied to study issues in food, nutrition, and health facing the US and world populations. Prerequisite: (AGEC 1103 or ECON 2023) and (AGEC 2403 or WCOB 1033).

AGEC 4613. Political Economy of Agriculture and Food. 3 Hours.
Agricultural and food policies are studied from domestic and international perspectives. Laws, regulations, decisions and actions by governments and other institutions are examined in terms of rationale, content, and consequences. Economic and political frameworks are used to assess policies in terms competitive structure, operation, and performance of farming and food systems. Prerequisite: (AGEC 1103 or ECON 2023) and (AGEC 2103 or ECON 2013) and (PSYC 2003 or SOCI 2013 or HDFS 2603).

AGEC 4623. International Agricultural Trade and Commercial Policy. 3 Hours.
Analysis of agricultural market competition and performance in a global economy. The impact of domestic and international agricultural policies on domestic and international markets and welfare. Economic principles applied to the interaction of economic events in the world food economy. Prerequisite: (AGEC 1103 or ECON 2023) and (AGEC 2103 or ECON 2013).

AGEC 500V. Special Problems. 1-3 Hour.
Individual reading and investigation of a special problem in agricultural economics not available under regular courses, under the supervision of the graduate faculty. Prerequisite: Graduate standing.

AGEC 5011. Seminar. 1 Hour.
Presentation and discussion of graduate student research. Formal presentations are made by all graduate students. Consideration given to research design, procedures, and presentation of results. Prerequisite: Graduate standing.

AGEC 502V. Special Topics. 1-3 Hour.
Advanced studies of selected topics in agricultural economics not available in other courses. Prerequisite: Graduate standing. May be repeated for degree credit.

AGEC 503V. Internship in Agricultural Economics. 1-3 Hour.
On-the-job application of skills developed in the M.S. program.
AGEC 5043. Agricultural Finance. 3 Hours.
(Formerly AGEC 4143.) Methods and procedures whereby agricultural firms acquire and utilize funds required for their successful operation. Emphasis is placed upon role of finance and financial planning and consideration is given to an understanding of financial risks serving agriculture. Graduate degree credit will not be given for both AGEC 4143 and AGEC 5043. Prerequisite: (AGEC 1103 or ECON 2023) and (AGEC 2103 or ECON 2013) and (AGEC 2142 or ACCT 2013 or WCOB 1023).

AGEC 5053. Advanced Farm Business Management. 3 Hours.
(Formerly AGEC 4403.) Principles and procedures of decision making as applied to the allocation of resources in the farm business for profit maximization. Emphasis is placed on use of principles of economics and their application to the decision making process. Includes exercises on the application of principles to specific farm management problems. Graduate degree credit will not be given for both AGEC 4403 and AGEC 5053. Prerequisite: AGEC 3403 and AGME 2903 or equivalent.

AGEC 5063. Agricultural and Rural Development. 3 Hours.
(Formerly AGEC 4163.) Examination of agricultural and rural development issues in less developed countries. Alternative agricultural production systems are compared, development theories examined, and consideration given to the planning and implementation of development programs. Graduate degree credit will not be given for both AGEC 4163 and AGEC 5063. Prerequisite: AGEC 1103 (or ECON 2023).

(Formerly AGEC 4373.) This course provides students an opportunity to gain a detailed working knowledge of how basis trading concepts and practices are applied to agricultural markets and to develop a skill set that can be put immediately into practice in any basis trading operation. Graduate degree credit will not be given for both AGEC 4373 and AGEC 5073. Prerequisite: AGEC 3373 or consent of instructor.

AGEC 5083. Basis Trading: Case Study. 3 Hours.
(Formerly AGEC 4383.) This course provides an opportunity to apply principles learned in AGEC 4373 to grain merchandising using the case study approach. The course will involve in-class meetings supplemented with faculty-directed group-based learning experiences involving professional grain merchandisers. Group activities will follow the traditional case study method. Graduate degree credit will not be given for both AGEC 4383 and AGEC 5083. Prerequisite: AGEC 4373 or AGEC 5073 (formerly AGEC 4373).

AGEC 5103. Agricultural Microeconomics. 3 Hours.
Masters-level training in agricultural microeconomic theory and its application to food, agriculture and the environment. The course covers behavior of firms, households and markets, in more depth and rigor than encountered in undergraduate courses. Theories are explained and then applied to relevant food, agricultural, environment and resource issues.

AGEC 5113. Agricultural Prices and Forecasting. 3 Hours.
(Formerly AGEC 4113.) Price theory and techniques for predicting price behavior of general economy and price behavior of individual agricultural products will be analyzed. Provides practice in the application of economics and statistics to agricultural price analysis. Lecture 2 hours, laboratory 2 hours per week. Graduate degree credit will not be given for both AGEC 4113 and AGEC 5113. Prerequisite: (AGEC 1103 or ECON 2023), AGEC 2403, (AGST 4023 or STAT 2303 or WCOB 1033) and MATH 2053.

AGEC 5123. AgriBusiness Entrepreneurship. 3 Hours.
(Formerly AGEC 4323.) Agribusiness entrepreneurship is the process of bringing food or rural-based products and services from conceptualization to market. The course presents the opportunities, problems and constraints facing individuals and firms operating in rural or isolated markets while emphasizing the steps in conceptualization, development, marketing, and delivery-selling of agribusiness products. Graduate degree credit will not be given for both AGEC 4323 and AGEC 5123. Prerequisite: AGEC 1103 or equivalent.

AGEC 5133. Agricultural and Environmental Resource Economics. 3 Hours.
An economic approach to problems of evaluating private and social benefits and costs of altering the environment. Emphasis given to the interaction of individuals, institutions, and technology in problems of establishing and maintaining an acceptable level of environmental quality. Prerequisite: Minimum of 3 hours Agricultural Economics or Economics at 3000 level or higher or PhD standing.

AGEC 5143. Financial Management in Agriculture. 3 Hours.
Covers advanced topics in agricultural finance. The general focus of the course is the financial management of non-corporate firms. Covers the basic tools of financial analysis including financial arithmetic, asset evaluation under risk, and financial analysis and planning using econometric models. Such topics covered include management of current assets, capital budgeting, capital structure, and institutions involved in agricultural finance. Prerequisite: Graduate standing.

AGEC 5153. The Economics of Public Policy. 3 Hours.
This class will examine the impact of public policy on agricultural and other business sectors as well as households and individuals, particular in rural areas. Emphasis will also be placed on analyzing the potential impact of future policy changes. The course will focus on the application of welfare criteria and economic analyses to the problems and policies affecting resource adjustments in agriculture and rural communities. Prerequisite: Graduate standing.

AGEC 5203. Agribusiness Marketing Management. 3 Hours.
(Formerly AGEC 4303.) Marketing concepts will be developed and applied to the global food and fiber system. The course will use both commodity and product marketing principles and economic theory to analyze varied marketing situations. Case studies will be used to demonstrate the role that demand analysis and consumer behavior play in market management. Graduate degree credit will not be given for both AGEC 4303 and AGEC 5203. Prerequisite: AGEC 2303 and AGEC 3303.

AGEC 5213. Agricultural Business Management. 3 Hours.
(Formerly AGEC 4313.) The planning, organizing, leading and controlling functions of management as they relate to agricultural business firms. Marketing of value-added products, budgeting, organizational structure, cost control, financial statements, capital budgeting and employee supervision and motivation. Case studies are used to teach communication and decision-making skills. Graduate degree credit will not be given for both AGEC 4313 and AGEC 5213. Prerequisite: (AGEC 2142 and AGEC 2141L) or (ACCT 2013 and AGEC 2303 or equivalent).

AGEC 5223. International Agricultural Trade and Commercial Policy. 3 Hours.
(Formerly AGEC 4623.) Analysis of agricultural market competition and performance in a global economy. The impact of domestic and international agricultural policies on domestic and international markets and welfare. Economic principles applied to the interaction of economic events in the world food economy. Graduate degree credit will not be given for both AGEC 4623 and AGEC 5223. Prerequisite: (AGEC 1103 or ECON 2023) and (AGEC 2103 or ECON 2013).

AGEC 5233. Political Economy of Agriculture and Food. 3 Hours.
(Formerly AGEC 4613.) Agricultural and food policies are studied from domestic and international perspectives. Laws, regulations, decisions and actions by governments and other institutions are examined in terms of rationale, content, and consequences. Economic and political frameworks are used to assess policies in terms competitive structure, operation, and performance of farming and food systems. Graduate degree credit will not be given for both AGEC 4613 and AGEC 5233. Prerequisite: (AGEC 1103 or ECON 2023) and (AGEC 2103 or ECON 2013) and (PSYC 2003 or SOCI 2013 or HDFS 2603).

AGEC 5303. Agricultural Marketing Theory. 3 Hours.
Survey of the structure of agricultural product and factor markets including a critique of theoretical analyses of industry structure, conduct and performance; and a review of market structure research in agricultural industries. Prerequisite: Graduate standing.
AGEC 5403. Quantitative Methods for Agribusiness. 3 Hours.
Application of quantitative techniques used to support managerial decision-making and resource allocation in agricultural firms. Provides exposure to mathematical and statistical tools (regression analysis, mathematical programming, simulation) used in economic analysis in agriculture. Emphasis is placed on computer applications with conceptual linkage to economic theory. Prerequisite: Graduate standing.

AGEC 5413. Agribusiness Strategy. 3 Hours.
Addresses problems of strategy formulation in agribusiness emphasizing current problems and cases in agriculture. Surveys modern and classic perspectives on strategy with applications to agribusiness. Examines the development of firm level strategies within the structure and competitive environment of agricultural firms and industries. Prerequisite: Graduate standing.

AGEC 5603. Food Economics and Health. 3 Hours.
This course provides an advanced overview of selected topics in food economics, food and nutrition policy and the interface between nutrition programs and health policy. Students will develop an understanding of economic and policy concepts of food, nutrition, and health. The course emphasizes analytical tools that can be applied to study issues in food, nutrition, and health facing the US and world populations. Prerequisite: Graduate standing.

AGEC 5613. Econometrics. 3 Hours.
Use of economic theory and statistical methods to estimate economic models. The single equation model is examined emphasizing multicollinearity, autocorrelation, heteroskedasticity, binary variables and distributed lags and model specification. Prerequisite: MATH 2043 and knowledge of matrix methods, (which may be acquired as a corequisite), and (AGEC 1103 or ECON 2023) and (AGEC 2403 or AGST 4023 or STAT 2303 or WCOB 1033).

AGEC 5623. Quantitative Food and Agricultural Policy Analysis. 3 Hours.
Introduction to applied analysis of domestic and international food and agricultural policies using quantitative tools. This course will provide hands-on experience with simulation modeling in microeconomics. An emphasis is placed on policy analysis through computer applications with theoretical underpinnings. Corequisite: Lab component. Prerequisite: (AGEC 5103 and AGEC 5403) or instructor consent.

AGEC 5713. Food Safety Law. 3 Hours.
This course provides students with an introduction to food law and policy, history of food regulation, the organization of federal food law and regulatory agencies, government inspection and enforcement powers, food safety standards, food labeling, food advertising and product liability. Web-based course.

AGEC 5723. Bioenergy and Resource Economics. 3 Hours.
This course surveys the allocation and conservation of natural resources from a perspective of optimal use and the sustainability of resources. The development and distribution issues relating to energy, land, water, and other resource areas are addressed in the course, with emphasis placed on the bioproducts and bioenergy concerns.

AGEC 5733. Bioenergy Economics and Sustainability. 3 Hours.
This course will provide an understanding of the economic issues relating to overall supply chains producing bioenergy and bio-based products. The course will address the economic, sustainability and social dimensions of these industries.

AGEC 600V. Master's Thesis. 1-6 Hour.
Master's Thesis. Prerequisite: Graduate standing. May be repeated for degree credit.

AGEC 700V. Doctoral Dissertation. 1-18 Hour.
Doctoral Dissertation. Prerequisite: Candidacy. May be repeated for degree credit.