Agricultural Economics and Agribusiness (AEAB)

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Agricultural Economics and Agribusiness Website (http:// agribus.uark.edu/)

Degree Conferred: M.S. in Agricultural Economics (AGECMS)

Areas of Concentration: Agricultural Economics, Agribusiness, Atlantis, and International Agribusiness.

Primary Areas of Faculty Research: Agribusiness, agricultural cooperatives, agricultural finance, agricultural marketing, agricultural outlook, agricultural policy, agricultural production, applied econometrics, delta crops (rice, soybeans, wheat, cotton), economic development, farm management, food policy, food marketing, global marketing, integrated pest management, international trade, managerial economics, market infrastructure and development, natural resource management, product development, production economics, public finance, risk management.

Students should also be aware of Graduate School requirements with regard to master's degrees (http://catalog.uark.edu/graduatecatalog/ degreerequirements/#mastersdegreestext).

M.S. in Agricultural Economics with Agricultural Economics Concentration

Admission Requirements: All applicants to the graduate program must submit official scores from either the Graduate Record Exam (GRE) or Graduate Management Admission Test (GMAT), although GRE scores are preferred.

Requirements for the Master of Science Degree in Agricultural Economics (Thesis): (Minimum 31 hours.)

Prerequisites to the Thesis Concentration

Three semester hours of introductory accounting.	3 3
	3
Three semester hours of upper-level marketing	
Three semester hours of upper-level management	3
Three semester hours of upper level (junior or senior) microeconomic theory	3
Three semester hours of statistics	3
Six semester hours of mathematics (College Algebra and Survey of Calculus or Higher Level Calculus)	6

Core Requirements

AGEC 51003	Agricultural Microeconomics	3
AGEC 54003	Quantitative Methods for Agribusiness	3
AGEC 56103/ ECON 66103	Econometrics	3
AGEC 6000V	Master's Thesis	6
AGEC 50101	Seminar	1
Agricultural Economics Electives		
Students must take six hours of other graduate courses in Agricultural Economics.		
Controlled Elec	ctives	9
Other gradua	te courses in Agricultural Economics	
Graduate courses in the Walton College of Business		
Other graduate courses		
Other Requiren	nents	
A minimum of 16 hours of Agricultural Economics.		

A maximum of 6 hours of AGEC graduate-level courses may be completed from a) those courses also offered as 4000-level undergraduate classes, and/or b) courses numbered 4000 or lower that do not have a corresponding graduate offering.

Total Hours

Students should also be aware of Graduate School requirements with regard to master's degrees (http://catalog.uark.edu/graduatecatalog/ degreerequirements/#mastersdegreestext).

M.S. in Agricultural Economics with Agribusiness Concentration

Requirements for the Master of Science Degree in Agricultural Economics (Agribusiness Concentration, Non-thesis): (Minimum 31 hours)

Prerequisites to the Non-thesis Concentration:

Six semester hours of mathematics (College Algebra and Survey of Calculus or Higher Level Calculus)	6
Three semester hours of statistics	3
Six semester hours of lower division economic theory (micro & macro)	6
Three semester hours of upper-level management	3
Three semester hours of upper-level marketing	3
Three semester hours of introductory accounting	3
Total Hours	24
Core Requirements	

Choose one of the following:			3
AGEC 51103 Agricultural Prices and Forecasting			
	AGEC 50703	Basis Trading: Applied Price Risk Management	
	AGEC 53003	Agricultural Marketing Theory	
	AGEC 50803	Basis Trading: Case Study	
	AGEC 56003	Food Economics and Health (AGEC 56003 may	
		only be used once to meet program requirements)	
A	GEC 50101	Seminar	1
A	GEC 51003	Agricultural Microeconomics	3
С	Choose one of the following:		3
	AGEC 51203	AgriBusiness Entrepreneurship	
	AGEC 51403	Financial Management in Agriculture	

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31

Total Hours		31
Minimum of 16	hours in Agricultural Economics	
be completed to undergraduate	6 hours of AGEC graduate-level courses may from a) those courses also offered as 4000-level classes, and/or b) courses numbered 4000 or lower ve a corresponding graduate offering.	
Other Requirem		
Other Graduat	e Courses	
Graduate Cou	rses in the Walton College of Business	
Other Graduat	e Courses in Agricultural Economics	
AGEC 5030V	Internship in Agricultural Economics	
Controlled Elect	ives	12
AGEC 56003	Food Economics and Health (AGEC 56003 may only be used once to meet program requirements)	
AGEC 56203	Quantitative Food and Agricultural Policy Analysis	
AGEC 51303	Agricultural and Environmental Resource Economics	
AGEC 51503	The Economics of Public Policy	
AGEC 52203	International Agricultural Trade and Commercial Policy	
AGEC 52303	GEC 52303 Political Economy of Agriculture and Food	
AGEC 50603	Agricultural and Rural Development	
Take two of the	following courses:	6
AGEC 54003	Quantitative Methods for Agribusiness	3
AGEC 54103	Agribusiness Strategy	
AGEC 52103 Agricultural Business Management		

Students should also be aware of Graduate School requirements with regard to master's degrees (http://catalog.uark.edu/graduatecatalog/ degreerequirements/#mastersdegreestext).

M.S. in Agricultural Economics with Atlantis Concentration

Requirements for the Master of Science Degree in Agricultural Economics (U.S.-E.U. Atlantis Double Degree in Agricultural Economics and Rural Development Concentration): Thesis (Minimum 31 hours)

Participation in this two-year program includes U.S. students from the University of Arkansas and E.U. students from a consortium of five universities in Europe (University of Ghent, Ghent, Belgium; Humboldt University, Berlin, Germany; National Institute of Advanced Training and Research in Food and Agronomy, Rennes, France; University of Pisa, Pisa, Italy; and the Slovak University of Agriculture, Nitra, Slovakia). The program includes five academic terms (four semesters and one summer). U.S. students enroll for at least two terms at the University of Arkansas and for at least two terms at two E.U. universities in the European consortium. E.U. students enroll for at least two terms at two E.U. universities in the European consortium and at least two terms at the University of Arkansas. Study in both the U.S. and E.U. includes three semesters of graduate coursework, completion of a case study or internship during the summer, and one semester of joint thesis research supervised by U.S. and E.U. faculty. All coursework is in English in both the U.S. and E.U. Class enrollment for all students remains at their home university. University of Arkansas students earn credit for AGEC 5020V Special Topics for courses taken at E.U. universities. Upon successful completion of the program, students receive an M.S. degree in agricultural economics from the University of Arkansas, and an M.S. degree in rural development from the consortium of E.U. universities.

Prerequisites to the Atlantis Concentration:

Six hours of mathematics (college algebra or above)	6
Three hours of statistics	3
Three hours of economic principles	3
Six hours of courses in agricultural economics, rural development,	6
social sciences, or agriculture and agribusiness-related courses.	
Total Hours	18
Coro Poquiromonts	
Core Requirements	
Coursework from each of the following areas:	
Quantitative Analysis or Research Methods	3
Management or Marketing	3
Policy or Analysis of Public Sector Issues	3
Six hours of master's thesis	6
AGEC 50101 Seminar	1
Controlled Electives	15
Other graduate courses in Agricultural Economics	
Other graduate courses approved by the student's advisory	
committee	
Other Requirements	
Minimum of 16 hours in Agricultural Economics	

Maximum of 15 hours of transfer courses from an inventory of classes offered in the Atlantis consortium of EU universities to satisfy core requirements and/or controlled electives.

M.S. in Agricultural Economics with International Agribusiness Concentration

Requirements for the Master of Science Degree in Agricultural Economics (International Agribusiness Concentration, Non-thesis): (Minimum 31 hours.)

Note: Participation in this program includes University of Ghent (Belgium), and University of Arkansas (UA) students. Students may study either semester at the UA campus and the other semester at the University of Ghent in Belgium, West Europe. Classes for UA students taken at the University of Ghent are in English. The summer may be spent completing an agribusiness internship or special problem, but enrollment remains at the host institution. UA students earn credits in AGEC 5020V Special Topics for courses taken at Ghent.

Prerequisites to the Non-thesis Concentration:

Six semester hours of mathematics (College Algebra and Survey of Calculus or Higher Level Calculus)	6
Three semester hours of statistics	3
Six semester hours of lower division economic theory (micro & macro) $% \label{eq:semester}$	6
Three semester hours of upper-level management	3
Three semester hours of upper-level marketing	3
Three semester hours of introductory accounting.	3
Total Hours	24

Core Requirements

AGEC 54003	Quantitative Methods for Agribusiness	3
AGEC 54103	Agribusiness Strategy	3

Minimum of 16 hours of Agricultural Economics

AGEC 51403	Financial Management in Agriculture	3
or AGEC 5040	03Agricultural Finance	
or AGEC 5210	0: Agricultural Business Management	
AGEC 51503	The Economics of Public Policy	3
or AGEC 5230	03Political Economy of Agriculture and Food	
or AGEC 5130	03Agricultural and Environmental Resource Econom	ics
or AGEC 5600	03Food Economics and Health	
AGEC 53003	Agricultural Marketing Theory	3
AGEC 50101	Seminar	1
Agribusiness M	anagement (University of Ghent Electives)	
-	alent of 12 semester hours from the following:	12
AGEC 5020V	Special Topics	1-3
	Perspectives of Rural Development (3 credits)	
AGEC 5020V	Special Topics	1-3
	nic Theory and Farm Management (3 credits)	
AGEC 5020V	Special Topics	1-3
	Management (3 credits)	10
AGEC 5020V	Special Topics	1-3
		1-5
-	nd Rural Policy (3 credits)	1.0
AGEC 5020V	Special Topics	1-3
	oment and Agriculture (3 credits)	4.0
AGEC 5020V	Special Topics	1-3
	Economics (3 credits)	
AGEC 5020V	Special Topics	1-3
-	conomics of Developing Countries (2 credits)	
AGEC 5020V	Special Topics	1-3
Advanced Ma	rketing and Agribusiness Management (3 credits)	
AGEC 5020V	Special Topics	1-3
Applied Rural	Economic Research Methods (3 credits)	
AGEC 5020V	Special Topics	1-3
Applied Statis	tics (3 credits)	
AGEC 5020V	Special Topics	1-3
Food Marketir	ng and Consumer Behavior (3 credits)	
AGEC 5020V	Special Topics	1-3
Scientific Corr	nmunications on Rural Development (2 credits)	
AGEC 5020V	Special Topics	1-3
Econometrics	(2 credits)	
AGEC 5020V	Special Topics	1-3
Economics an	nd Management of Natural Resources (2 credits)	
AGEC 5020V	Special Topics	1-3
The Europear	Union's International Development Policy (3 credits	3)
Controlled Elec	tives	3
AGEC 5030V	Internship in Agricultural Economics	
Other graduat	e courses in Agricultural Economics	
	rses in the Walton College of Business	
Other graduat	e courses	
Other Requirem		
A maximum of 6 hours of AGEC graduate-level courses may		

A maximum of 6 hours of AGEC graduate-level courses may be completed from a) those courses also offered as 4000-level undergraduate classes, and/or b) courses numbered 4000 or lower that do not have a corresponding graduate offering.

AGEC 5020V	Special Topics	1-3
regard to master	also be aware of Graduate School red 's degrees (http://catalog.uark.edu/gra ents/#mastersdegreestext).	
Graduate I	Faculty	
	ice L., Ph.D., M.S. (North Carolina Sta	ate Universitv), B.S.
	rersity), Professor, 1990, 2007.	xie eniteren.j/, 2.e.
	D. , Ph.D. (Oklahoma State Universit	v). M.S. (Arkansas
	, B.S. (College of the Ozarks), Profess	
Andrew, Anders	son, Ph.D. (Kansas State University),	M.S. (Purdue
University), B.S.	(Brigham Young University-Idaho), As	ssistant Professor,
2023.		
	J., Ph.D., M.S. (Michigan State Univer	rsity), B.S. (New
	iversity), Professor, 1982, 1991.	
	Alvaro, Ph.D., M.S. (University of Arka	
	sity of Entre Rios), Assistant Professo	
•	ng, Ph.D. (University of California-Davi na), Professor, 2013, 2018.	s), d.S. (Remin
	n , Ph.D., M.S. (University of Arkansas), B.S. (Missouri
• •	, Clinical Professor, 2014.	,, 2.0. (
	r, Ph.D., M.E. (North Carolina State L	Jniversity), B.A.
(Macalester Coll	ege), Assistant Professor, 2022.	
McKenzie, And	rew Malcolm, Ph.D. (North Carolina S	State University),
	niversity), B.Admin. (University of Dun	dee), Professor,
1998, 2010.		
	Lanier, Ph.D. (Kansas State Universit	
2008, 2018.	e University), B.S. (The Ohio State Ur	liversity), Professor,
	son, Ph.D. (Texas A&M University), N	AS BS
-	nin), Teaching Assistant Professor, 20	
	heerin, Ph.D., M.S. (Colorado State U	
	ranton), Professor, 1998, 2010.	
Popp, Michael I	P., Ph.D. (Colorado State University),	M.B.A. (University
of Colorado-Bou	Ider), B.Comm. (University of Manitob	a), Professor, 1998,
2006.		
	L., Ph.D., M.S., B.S.A. (University of A	Arkansas),
Professor, 1993,		a a a sha ha a sha a t
Professor, 2009.	W., J.D. (University of Oklahoma), Re	search Assistant
	ael R., Ph.D. (University of Minnesota	-Morris) M.S. B.S.
	ersity), Professor, 1998, 2015.	momo), moi, b.c.
	n Bradley, Ph.D. (Oklahoma State Ur	niversity), M.S.,
B.A. (University	of Arkansas), Professor, 2002, 2014.	
Courses		
	cial Problems. 1-3 Hour.	
-	and investigation of a special problem in ag	ricultural economics
-	regular courses, under the supervision of t	

Prerequisite: Graduate standing. (Typically offered: Fall, Spring and Summer) AGEC 50101. 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. (Typically offered: Fall and Spring)

AGEC 5020V. Special Topics. 1-3 Hour.

Advanced studies of selected topics in agricultural economics not available in other courses. Prerequisite: Graduate standing. (Typically offered: Irregular) May be repeated for degree credit.

AGEC 5030V. Internship in Agricultural Economics. 1-3 Hour.

On-the-job application of skills developed in the M.S. program. (Typically offered: Fall, Spring and Summer)

AGEC 50403. 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. Graduate degree credit will not be given for both AGEC 41403 and AGEC 50403. Prerequisite: (AGEC 11003 or ECON 22003) and (AGEC 21003 or ECON 21003) and (AGEC 21403 or ACCT 20103). (Typically offered: Fall)

AGEC 50503. 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. Graduate degree credit will not be given for both AGEC 44003 and AGEC 50503. Prerequisite: AGEC 34003 and ASTM 29003 or equivalent. (Typically offered: Fall)

AGEC 50603. 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. Graduate degree credit will not be given for both AGEC 41603 and AGEC 50603. Prerequisite: AGEC 11003 (or ECON 22003). (Typically offered: Fall)

AGEC 50703. Basis Trading: Applied Price Risk Management. 3 Hours.

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 43703 and AGEC 50703. Prerequisite: AGEC 33703 or consent of instructor. (Typically offered: Spring and Summer)

AGEC 50803. Basis Trading: Case Study. 3 Hours.

This course provides an opportunity to apply principles learned in AGEC 43703 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 43803 and AGEC 50803. Prerequisite: AGEC 43703 or AGEC 50703 (formerly AGEC 43703). (Typically offered: Fall)

AGEC 51003. 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. (Typically offered: Fall)

AGEC 51103. 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. Graduate degree credit will not be given for both AGEC 41103 and AGEC 51103. Prerequisite: Graduate Standing. (Typically offered: Spring)

AGEC 51203. 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. Graduate degree credit will not be given for both AGEC 43203 and AGEC 51203. Prerequisite: AGEC 11003 or equivalent. (Typically offered: Spring)

AGEC 51303. 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. (Typically offered: Spring)

AGEC 51403. 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. (Typically offered: Fall)

AGEC 51503. 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. (Typically offered: Spring)

AGEC 52003. 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. Graduate degree credit will not be given for both AGEC 43003 and AGEC 52003. Prerequisite: Graduate Standing. (Typically offered: Fall and Summer)

AGEC 52103. 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. Graduate degree credit will not be given for both AGEC 43103 and AGEC 52103. Prerequisite: (AGEC 21403 or ACCT 20103) and AGEC 23003 or equivalent. (Typically offered: Fall)

AGEC 52203. 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. Graduate degree credit will not be given for both AGEC 46203 and AGEC 52203. Prerequisite: (AGEC 11003 or ECON 22003) and (AGEC 21003 or ECON 21003). (Typically offered: Spring)

AGEC 52303. 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. Graduate degree credit will not be given for both AGEC 46103 and AGEC 52303. Prerequisite: (AGEC 11003 or ECON 22003) and (AGEC 21003 or ECON 21003) and (PSYC 20003 or SOCI 10103 or HDFS 26003). (Typically offered: Fall)

AGEC 53003. 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. (Typically offered: Fall)

AGEC 54003. 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. (Typically offered: Fall)

AGEC 54103. 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. (Typically offered: Spring)

AGEC 56003. 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. (Typically offered: Spring)

AGEC 56103. 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 22003 and knowledge of matrix methods, (which may be acquired as a corequisite), and (AGEC 11003 or ECON 22003) and (AGEC 24003 or MATH 21003 or BUSI 10303). (Typically offered: Spring)

AGEC 56203. 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. Prerequisite: Graduate Standing. (Typically offered: Fall)

AGEC 56403. Agricultural Data Science. 3 Hours.

Agricultural and environmental data gathering, wrangling, analysis, and visualization with emphasis on applied programming, version control, and analytical skills. This course provides students foundational and applied skills in constructing diverse cross-sectional and panel data sets for econometric investigation. Students should expect to learn and demonstrate competency in programming for data gathering, wrangling, analysis, and visualization. The course will cover common data sources, descriptive analysis, and econometric techniques used in agricultural and production economics. Prerequisite: Graduate standing. (Typically offered: Spring)

AGEC 57103. 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. (Typically offered: Fall Odd Years)

AGEC 6000V. Master's Thesis. 1-6 Hour.

Master's Thesis. Prerequisite: Graduate standing. (Typically offered: Fall, Spring and Summer) May be repeated for degree credit.

AGEC 7000V. Doctoral Dissertation. 1-18 Hour.

Doctoral Dissertation. Prerequisite: Candidacy. (Typically offered: Fall, Spring and Summer) May be repeated for degree credit.