

Agricultural and Applied Economics

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Agricultural and Applied Economics
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The Agricultural and Applied Economics Program offers a BS degree with a major in Agribusiness Management and MS and PhD degrees with a major in Agricultural and Applied Economics. A minor in Agricultural Economics is also available. Agricultural and Applied Economics is home to several programs and research centers where students can seek on-campus work experience.

- Contracting and Organizations Research Institute (CORI): An interdisciplinary research institute, CORI is dedicated to studying how economic enterprises organize and structure themselves and determining the effects of legal, political, social and economic institutions on the structure and performance of economic organizations.
- Food Equation Institute (FEI): The Food Equation Institute formed to determine how data collected throughout the food and agricultural products value chain and related innovation make the greatest impact on society.
- Economics and Management of Agrobiotechnology Center (EMAC): A research institute devoted to studying the effects of biotechnology on agriculture, food production and value chains, EMAC provides rigorous, data-based analysis of economic, management and policy issues affecting decision-making in agricultural biotechnology.
- Food and Agricultural Policy Research Institute (FAPRI): To estimate how different policy options affect prices and quantities, producers, consumers and government costs, FAPRI staff use economic models of key commodity markets. FAPRI works with collaborators at MU and other institutions so that the analysis can estimate impacts on crop, livestock and biofuel markets in the U.S. and other countries.
- McQuinn Center for Entrepreneurial Leadership (MCEL): The center dedicates its focus to researching and promoting entrepreneurship in the food and agriculture sector.
- Missouri Institute of Cooperatives (MIC): Coordinates information and leadership training for cooperatives serving Missouri.
- Graduate Institute of Cooperative Leadership (GICL): Annually, the institute trains mid-level cooperative managers to develop leadership and management skills required by the evolving global agricultural marketplace. As emerging leaders, these participants also benefit from the institute's focus on facilitating their personal career growth.

Our Extension Programs

- Agricultural Business and Policy Extension: The Agricultural Business and Policy Extension group serves rural Missouri by helping farms, agribusinesses and communities understand their opportunities and challenges and make informed decisions. The team has four focuses: sharing how market risks may shift market outlook; studying relevant industry issues; communicating potential effects of domestic

and trade policy decisions; and assessing diversification and new business opportunities for farms, businesses and commodity groups.

- Community Regional Economic and Entrepreneurial Development Program (ExCEED): ExCEED, An MU Extension program, works to build vibrant communities with informed leaders, resilient economies, ready access to food and health resources, entrepreneurial mindsets, financial preparedness and inclusive environments.

Faculty

Professor M. L. Cook**, H. S. James**, N. Kalaitzandonakes**, L. M. J. McCann**, J. Parcell** J. I. Stallman**, C. B. Valdivia**, R. E. Westgren**, P. Westhoff**

Associate Professor S. A. Low**, M. J. Monson*, K. C. Moore*, M. E. Sykuta**, W. Thompson**

Assistant Professor M. Segovia*, T. Skevas**

Extension Professor R. Massey**

Extension Associate Professor D. S. Brown**, J. Kruse

Assistant Teaching Professor J. Palacios Rivera

Research Assistant Professor J. Binfield, J. Grashuis

Instructor M. Foreman, J. Moreland, L. F. Sowers

Adjunct Faculty H. Gedikoglu, D. Miller

Professor Emeritus M. Bennett, C. Braschler, M. E. Bredahl, T. Brown, J. Dauve, B. J. Deaton, G. Devino, J. Findeis**, G. A. Grimes, C. Headley, N. A. Hein, J. E. Ikerd, V. Jacobs, M. S. Kaylen*, T. Johnson**, S. F. Matthews, W. H. Meyers**, D. D. Osborn, R. Plain*, A. A. Prato, V. J. Rhodes, K. Schneeberger, D. L. VanDyne, P. F. Warnken, H. Williamson Jr.*, A. W. Womack**

* Graduate Faculty Member - membership is required to teach graduate-level courses, chair master's thesis committees, and serve on doctoral examination and dissertation committees.

** Doctoral Faculty Member - membership is required to chair doctoral examination or dissertation committees. Graduate faculty membership is a prerequisite for Doctoral faculty membership.

Undergraduate

While MU does not offer an undergraduate degree specifically in agricultural and applied economics, the University does offer a bachelors degree in the closely related area of Agribusiness Management (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/agribusinessmanagement/#undergraduatetext>), as well as other related areas both within the College of Agriculture, Food and Natural Resources, and in the other Schools and Colleges that make up the University. The catalog provides a complete list of these degree options (<http://catalog.missouri.edu/degreesanddegreeprograms/>).

Graduate

- MS in Agricultural and Applied Economics (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/agappliedeconomics/ms-ag-applied-economics/>)
- PhD in Agricultural and Applied Economics (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/agappliedeconomics/phd-ag-applied-economics/>)

Agricultural and Applied Economics
138A Mumford Hall; Columbia, MO 65211

(573) 882-3747

<https://dass.missouri.edu/>

Director of Graduate Studies: Harvey James (hjames@missouri.edu)

The graduate program of the Division of Applied Social Sciences (DASS) at the University of Missouri (MU) is recognized for its innovative approach to graduate training. As a graduate student, you will have the opportunity of working with leading scholars engaged in a diverse range of challenging research projects.

We offer MS (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/agappliedeconomics/ms-ag-applied-economics/>) and PhD (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/agappliedeconomics/phd-ag-applied-economics/>) programs in **Agricultural and Applied Economics** with three focus areas, MS (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/ruralsociology/ms-rural-sociology/>) and PhD (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/ruralsociology/phd-rural-sociology/>) programs in **Rural Sociology**, and MS (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/agriculturalleadershipcommuned/ms-ag-lead-communed/>) and PhD (<http://catalog.missouri.edu/undergraduategraduate/collegeofagriculturefoodandnaturalresources/agriculturaleducation/phd-agricultural-education/>) programs in **Agricultural Education and Leadership**.

Agricultural and Applied Economics Focus Areas

Managerial, Behavioral & Organizational Economics (MS, PhD)

The Managerial, Behavioral & Organizational Economics (<https://dass.missouri.edu/graduate-studies/managerial-behavioral-and-organizational-economics/>) area provides a coherent area of study for preparing students for academic careers in applied economics, management, and related cognate fields; and for careers in government and industry. The program is based upon a set of courses offered in the Division that supports MS and PhD training in microeconomic theory, neo-institutional economics, behavioral economics, and organizational economics. These core courses are augmented by courses in qualitative and quantitative methods and a cognate area that supports the student's research. The cognate area is chosen in consultation with the major advisor and committee input

Environmental and Development Economics (MS, PhD)

In the Environmental and Development Economics (<https://dass.missouri.edu/graduate-studies/environmental-and-development-economics/>) area, you will develop skills and knowledge to address some of society's most pressing problems. There are many linkages among development and environmental and natural resource policy issues, both in developed and developing economies. This is especially true where agriculture plays a significant role in the livelihoods of people and rural communities, because soil and water resources are critical determinants of both agricultural productivity and human well-being, but also because of the importance of agriculture and resources for the quality of life of all humans. The importance of these linkages is evidenced by the emphasis on sustainable development in policy circles. Because institutions affect environmental outcomes, risk, and economic development, comparing institutions across differing contexts can provide useful insights for

policy. Behavioral economics is an emerging research area that can be applied productively to environmental and development issues. You will apply theory from economics and other social sciences, use rigorous analytical tools for translational research to analyze real-world problems and policies that can address them.

Public Policy Analysis (MS, PhD)

The Public Policy Analysis (<https://dass.missouri.edu/graduate-studies/public-policy-analysis/>) area seeks knowledge about how agricultural and food policy and innovation influence markets and, ultimately, human well-being. The program relies on a rigorous approach to agricultural economics that underpins applied analysis, including experimental and behavioral economic models, strategic interaction models, structural economic models, investment or firm models, systems simulation, mathematical programming and econometrics. It relies on coursework and research with widely recognized centers for agricultural economics, such as the Food and Agricultural Policy Research Institute (FAPRI) (<https://www.fapri.missouri.edu/>), Agricultural Markets and Policy (AMAP) (<https://amap.missouri.edu/>), the Economics and Management of Agrobiotechnology Center (EMAC) (<https://emac.missouri.edu/>) and the Food Equation Institute (FEI).

Application Process

You need to submit the following to the Division of Applied Social Sciences:

- Application for Admissions Form (https://dass.missouri.edu/wp-content/uploads/sites/20/2019/02/Grad_AppForm.pdf) (PDF)
- Recommendation Form
- Short essay explaining why you want to study at the University of Missouri
- Official transcripts
- GRE score report (required for Agricultural and Applied Economics)
- TOEFL score, if applicable

Apply online through the University of Missouri Graduate School:

- Online University of Missouri graduate studies application (<https://gradschool.missouri.edu/admissions/apply/>)

Application Deadlines

For priority consideration for assistantships, fellowships and scholarships, applications should be submitted by **Jan. 15** for Fall enrollment and **Sept. 1** for Spring enrollment.

Financial Assistance

Requests for financial assistance should be made at the time students apply for admittance into the program.

AAE 7223: Professional Solution Selling

(cross-leveled with ABM 4223). This course will reinforce the sales education students gained in ABM 2223, Agricultural Sales. Class will focus on strategic and conceptual selling which are techniques geared toward complex B2B sales. In this course, we will discuss myriad career opportunities in the sales profession. Students will have the opportunity to interact with sales professionals.

Credit Hours: 3

Prerequisites: ABM 2223

AAE 7240: Microeconomics Theory and Applications

(cross-leveled with ABM 4240). This course extends the learning from principles of microeconomics for students of applied economics. The topics in this course prepare students for further study in finance, business management, policy analysis, economic development, and other applications of economic theory. The course stresses development of theoretical models of consumer choice, firm behavior, perfect and imperfect markets, and externalities, balanced by investigation of the assumptions behind these models. Applications of the models to management and policy issues will be assigned throughout the semester.

Credit Hours: 3

Prerequisites: ABM 1041 or ECONOM 1014

AAE 7251: Agricultural Prices

(cross-leveled with ABM 4251). Variations in prices of agricultural products; underlying factors.

Credit Hours: 3

Prerequisites: ABM 2123 and ABM 2225 or STAT 2500

AAE 7295: Agricultural Risk Management

(cross-leveled with ABM 4295). This class will examine the range of risks businesses face and explore ways of characterizing and evaluating those risks.

Credit Hours: 3

Prerequisites: ABM 2183 and ABM 2225 or STAT 2500

AAE 7301: Topics in Agricultural and Applied Economics

Current and new topics not currently offered in applied and/or theoretical areas in Agricultural and Applied Economics.

Credit Hour: 1-6

AAE 7400: Environmental Law, Policy, and Justice

(same as ENV_SC 7400; cross-leveled with ENV_SC 4400). This course will examine the intersection of environmental law, policy, and justice. We will first cover the building blocks of U.S. environmental law, including common law and statutes such as the Clean Air Act and the Clean Water Act. We will then turn to international environmental policy issues such as climate change, marine pollution, and the hazardous waste trade. We will approach these laws and treaties through the lens of equity and environmental justice. The course will use a variety of teaching methods, including lecture and classroom discussion using cold calling and the Socratic Method. We will also have student presentations, guest speakers, a moot court, a negotiation simulation, and a field trip in the Columbia, Missouri area. Graded on A-F basis only.

Credit Hours: 3

AAE 7940: Internship Experiences in Agricultural and Applied Economics

Combines study, observation, and employment in a public agency or private firm in marketing, farm management, or credit. Staff supervision and evaluation. Reports required. Graded on S/U basis only.

Credit Hour: 1-3

Prerequisites: 2.5 GPA; 75 hours of course work and instructor's consent

AAE 7962: Planning the Farm Business

(cross-leveled with ABM 4962). Economic analysis and planning of the farm business and its organization. Applications of computerized management techniques to farm business including resource acquisition, tax management, enterprise analysis, and business analysis through farm records and budgets.

Credit Hours: 3

Prerequisites: ABM 3260

AAE 7971: Agribusiness Management Strategy

(cross-leveled with ABM 4971). Analysis of industry forces in agriculture and food sector. Assessing risks and firms capabilities. Development of firm's competitive strategy, including vertical integration, diversification, international business option, and financial planning and performance measurement.

Credit Hours: 3

Prerequisites: ABM 3282 or FINANC 3000 and ABM 3286 or MANGMT 3000

AAE 7972: Agri-Food Business and Cooperative Management

(cross-leveled with ABM 4972). Risk management in the global agrifood chain, including managing the unique uncertainties of biological production processes, global market analysis, and government intervention, of risk management tools and institutions unique to strategic decision making in agribusiness and cooperative firms.

Credit Hours: 3

Prerequisites: ABM 4971 and ABM 3286 or MANGMT 3000

Recommended: ABM 3256

AAE 7983: Strategic Entrepreneurship in Agri-Food

(cross-leveled with ABM 4983). Strategic entrepreneurship is the search for opportunities to generate income streams from innovation, development of new markets, and altering the rivalry positions in existing markets. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: Graduate standing and one course at the level of intermediate microeconomics

AAE 7990: Economic Analysis of Policy and Regulation

(cross-leveled with ABM 4990). Apply economic concepts and tools to analyze the policy-making process and the implications of policy for individuals, firms, markets and society. Policy topics include, among other things, agricultural support programs, environmental policy, international trade, international development, and agribusiness regulation.

Credit Hours: 3

Prerequisites: ABM 4251

Recommended: ECONOM 4351

AAE 7995: Economics of Agricultural Production and Distribution

(cross-leveled with ABM 4995). Applies economic principles to agricultural production including price theory, linear programming and uncertainty.

Credit Hours: 3

Prerequisites: ECONOM 3251 and ABM 2225 or STAT 2500

AAE 8001: Advanced Topics in Agricultural and Applied Economics

Analyzes economic logic problems. Current agricultural and applied economic problems.

Credit Hours: 3

AAE 8050: Economics of Institutions and Organizations

This course expands upon the fundamental principles of neo-classical economics by relaxing traditional behavioral and informational assumptions and by introducing the importance of transaction costs and institutions for economic analysis.

Credit Hours: 3

AAE 8060: Quantitative Tools for Decision Making and Performance Evaluation

Firm decision making and evaluation are key concepts in business economics and management. This is an introductory course that focuses on quantitative methods for modeling the decision process and evaluating the performance of Decision-Making Units (DMUs).

Credit Hours: 3

Prerequisites: STAT 4510

AAE 8085: Masters Problems in Agricultural and Applied Economics

Supervised study, research in specialized phases of agricultural and applied economics.

Credit Hour: 1-99

AAE 8090: Masters Thesis Research in Agricultural and Applied Economics

Independent investigation of advanced nature, leading to dissertation. Graded on a S/U basis only.

Credit Hour: 1-6

AAE 8265: Agricultural and Food Policy

The course is designed to help students understand how agricultural and food policies are developed and how they can affect farmers, consumers, taxpayers and the environment. Topics include the policy process, farm subsidy programs, crop insurance, nutrition programs, trade agreements, food security, biofuel policies, promotion of organic and local foods and food safety. The primary focus will be U.S. policies, but policies in other countries will also be discussed. Students will develop analytical skills that will prepare them for careers in government, business or academia. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: ECONOM 7351 or equivalent

Recommended: AAE 9220, AAE 9230

AAE 8350: Regional Development Issues and Analysis

(same as PUB_AF 8350). Examines theories of regional growth and development and methods for analysis with applications to current policy issues. Topics include firm location, new economic geography and agglomeration theory, clusters, human capital, migration, social capital, tax and development incentives, and sustainable regional development.

Credit Hours: 3

Prerequisites: ECONOM 7351 or PUB_AF 8190 or equivalent

AAE 8410: Natural Resource and Environmental Economics

Contemporary natural resource/environmental problems; natural resource capacity, alternative economic theories, property rights, externalities, market failures, efficient use of exhaustible and renewable resources, and economics of environmental pollution.

Credit Hours: 3

Prerequisites: ECONOM 7351

AAE 8430: International Agricultural Development Policy

An analytical review of economic policies directed toward stimulating agricultural development in the world's low income countries.

Credit Hours: 3

Prerequisites: ECONOM 7351 and ECONOM 7353

AAE 8450: Masters Non Thesis Research

Independent investigation of advanced nature. Report required.

Credit Hour: 1-6

AAE 8510: Research Methods and Design

(same as AG_ED_LD 8510, RU_SOC 8510). This course will give students a foundational understanding of quantitative research methods and design in the social and behavioral sciences. The main objective is to help students identify and formulate their own research questions and develop and implement a process for answering them. Students will examine the nature of the research process, explore the connection between theory and empirical research, identify viable research topics, critique published research, learn how to structure good arguments, understand the structure of research papers and proposals, plan and manage research activities, and become familiar with research ethics. Graded on A-F basis only.

Credit Hours: 3

AAE 8520: Economics of Transaction and Contracting

This course focuses on the economic incentives underlying transaction relationships and develops and implements a framework for analyzing contract documents governing various kinds of transactions.

Credit Hours: 3

AAE 8610: Economic and Sociological Approaches to Collective Action

(same as RU_SOC 8610). This course identifies analytical and methodological tools, including rational choice and social capital, to deal with practical problems of collective action in: agricultural cooperatives, rural community development, political interest groups and other mutuals.

Credit Hours: 3

Prerequisites: AAE 7972

AAE 8860: International Comparative Rural Policy

(same as PUB_AF 8860, NAT_R 8860). Compares the rural policy objectives and implementation strategies of various countries, and assesses these policies in terms of economic, social, environmental outcomes and their implications for international relations. Includes 2-weeks of study Abroad. May be repeated for credit. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: instructor's consent

AAE 9001: Advanced Topics in Economics II

Analyzes economic logic problems. Current agricultural economic problems.

Credit Hours: 3

AAE 9040: Advanced Microeconomics Theory and Applications I

First semester course that rigorously examines the microeconomic theory of producer and consumer behavior, combined with applications of the theoretical concepts to empirical economic research on agricultural, business, development, and environmental issues. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: ECONOM 7351 or instructors consent

AAE 9042: Advanced Microeconomics Theory and Applications II

Second semester advanced micro theory covering choice under uncertainty, industry structure, game theory, information econ, and political economy of regulation. Includes applications of micro models to issues in agricultural, natural resource, and development sectors.

Credit Hours: 3

Prerequisites: AAE 9040

AAE 9085: Doctoral Problems in Agricultural and Applied Economics

Supervised study, research in specialized phases of agricultural and applied economics.

Credit Hour: 1-99

Prerequisites: instructor's consent

AAE 9090: Doctoral Dissertation Research in Agricultural and Applied Economics

Independent investigation of advanced nature, leading to dissertation. Graded on a S/U basis only.

Credit Hour: 1-99

AAE 9220: Price and Market Analysis

Applies economic theory and quantitative methods to analyze agricultural prices and markets. Examines problem formulation, estimation, and model evaluation applied to the concepts of demand, supply, and prices.

Credit Hours: 3

Prerequisites: ECONOM 8451 or ECONOM 8472; STAT 4510

AAE 9230: Welfare and Consumption Economics

Introduces welfare economic principles; application to problems of resource allocation. Appraises economic policies, programs; consumers' choice; measurement of consumption; living standards; household decisions and markets relation.

Credit Hours: 3

Prerequisites: ECONOM 8451 or instructor's consent

AAE 9265: Food, Agricultural and Rural Policy

Application of welfare economics theory to food, agricultural and rural development policy analysis. Historical perspective and economics analysis of contemporary issues in national and international policy and institutions.

Credit Hours: 3

Prerequisites: ECONOM 7351 and AAE 9230

AAE 9510: Organizational Economics I

This course builds on transaction cost-based theories and tools to study the economic underpinnings of intra-firm organization, firm boundaries, and the structure of inter-firm transactions.

Credit Hours: 3

Prerequisites: AAE 8050

AAE 9520: Organizational Economics II

Relationships of neoclassical and new institutional economics to designing organizational strategy and structure. Internal coordination and structure, organizational boundaries, inter-firm rivalry and cooperation, and competitiveness of food system organizations.

Credit Hours: 3

Prerequisites: AAE 8050
