AGRICULTURAL SCIENCES

Altman, Jacob, Assistant Professor, Ph.D., University of Missouri, 2005; 2006.
Beaulieu, Jeffrey R., Associate Professor, Ph.D., Iowa State University, 1984; 1983.
Beck, Roger J., Associate Professor, Emeritus, Ph.D., Pennsylvania State University, 1977; 1984.
Eberle, Phillip R., Associate Professor, Ph.D., Iowa State University, 1983; 1983.
Harris, Kim S., Associate Professor, Ph.D., University of Illinois, 1985; 1984.
Herr, William M., Professor, Emeritus, Ph.D., Cornell University, 1954; 1957.
Keepper, Wendell E., Professor, Emeritus, Ph.D., Cornell University, 1938; 1950.
Kraft, Steven E., Professor, Emeritus, Ph.D., Cornell University, 1976; 1980.
Moon, Wanki, Assistant Professor, Ph.D., University of Florida, 1995; 2000.
Rendleman, C. Matthew, Associate Professor, Ph.D., Purdue University, 1989; 1994.
Sanders, Dwight R., Associate Professor, and Acting Chair, Ph.D., University of Illinois, 1999; 2000.
Secchi, Silvia, Assistant Professor, Ph.D., Iowa State University, 2000; 2008.

The Department of Agribusiness Economics (ABE) offers graduate work leading to the Master of Science degree with a major in agribusiness economics. A program of concurrent study leading to the award of two master's degrees, the Master of Business Administration and Master of Science with a major in agribusiness economics, can be undertaken. An interdisciplinary degree at the Master of Science level may be achieved by completing requirements as a double degree major.

Graduate students with a minimal undergraduate grade point average of 2.7 (4.0 scale) and demonstrated competence in economics, statistics, mathematics, and agricultural economics are admitted on an unconditional basis to the ABE Master of Science degree programs. Students with insufficient background may be admitted contingent upon demonstration of satisfactory completion of undergraduate courses in deficient areas.

This program requires a nonrefundable $50.00 application fee that must be submitted with the application for Admissions to Graduate Study in Agribusiness Economics. Applicants may pay this fee by credit card if applying electronically. Applicants submitting a paper application must pay by personal check, cashier’s check, or money order made out to SIU, and payable to a U.S. Bank.

Application forms for admission to the Graduate School are available from the Agribusiness Economics Department. Inquiries concerning financial assistance and additional information should be directed to the chair of the Department of Agribusiness Economics, Mail Code 4410, Southern Illinois University Carbondale, Carbondale, IL 62901-4410.

Agribusiness Economics Concentration

Through selected coursework and research students may specialize in resource and environmental economics, economic and rural development, agribusiness management and finance, agricultural marketing and prices, farm production management, and international trade and agricultural policy.

The Master of Science degree major in agribusiness economics with a concentration in agribusiness economics is awarded upon completion of required coursework with a minimum graduate grade point average of 3.0 (4.0 scale) in either of two options; a thesis or a non-thesis (research paper) option. For both options at least 15 hours must be at the 500 level.

The thesis option requires satisfactory completion of thirty hours of graduate credit. This includes thirteen hours in structured agribusiness economics courses; ABE 500a, 500b, 551, 552, and 581. Eleven hours of elective graduate credit are selected based upon recommendation from the agribusiness faculty member directing the student’s thesis work. A research component including six hours of ABE 599 and an oral examination is required.

The non-thesis option requires satisfactory completion of thirty-six hours of graduate credit. This includes thirteen hours in structured agribusiness economics courses; ABE 500a, 500b, 551, 552, and 581. Twenty-one hours of elective graduate credit are selected based upon recommendation from the agribusiness faculty member acting as the student’s research paper advisor. Six of these elective hours are selected from structured agribusiness economics courses offered at the 400 level. A research component including two hours of ABE 593 and an oral presentation of the student’s research paper is required.

Agricultural Services Concentration

The agricultural services concentration is designed to permit individuals who are professionals in private industry or public service to earn a Master of Science degree with a major in agribusiness economics while remaining fully employed in the agricultural sector.

A minimum of 30 hours of graduate credit, including a thesis, or 36 hours of graduate credit, including a research paper, is required for the Master of Science degree major in agribusiness economics with a concentration in agricultural services. At least 15 hours must be at the 500 level. Fifteen hours must be
agricultural courses. The research component for the thesis and non-thesis options are as specified for the Agribusiness Economics Concentration.

**M.B.A./M.S. in Agribusiness Economics Concurrent Degree Program**

The Department of Agribusiness Economics (ABE) and the College of Business and Administration together offer an M.B.A./ABE M.S., a concurrent degree program leading to both the Master of Business Administration and the Master of Science with a major in agribusiness economics. The separate M.B.A. degree requires completion of 32 semester hours of coursework; the M.S. with a major in ABE requires the completion of 30 semester hours (thesis option) or 36 hours (non-thesis option). In the concurrent M.B.A./M.S. degree program, the College of Business and Administration accepts six semester hours of ABE approved coursework, and ABE accepts six semester hours of College of Business and Administration approved coursework. The end result is that the concurrent degree requires completion of 26 semester hours of College of Business and Administration approved courses and 24 semester hours of ABE approved courses (thesis option) or 30 semester hours of ABE approved courses including a minimum of 6 semester hours of ABE courses at the 400 level (non-thesis option), or a decrease of 12 semester hours from pursuing both degrees separately.

The ABE M.S. as a part of this option requires satisfactory completion of ABE 500a, 500b, 551, 552, and 581 and additional elective hours. A research component of a thesis (thesis option) or research paper (non-thesis option) as specified for the Agribusiness Economics Concentration must be completed for award of the ABE M.S.

Students interested in enrolling in the concurrent M.B.A./ABE M.S. program must apply to and be accepted by both the graduate programs in the ABE Department and the College of Business and Administration. The student then may request permission to pursue the concurrent degree. Students enrolled in either the M.B.A. or ABE M.S. may subsequently seek permission to pursue the concurrent degree. Admission to the concurrent degree must be completed at least one semester before the last semester of registration at SIUC. The student must complete the requirements of the concurrent degree program to receive both the M.B.A. and ABE M.S. If the student elects, after acceptance into the concurrent degree program, to pursue either, but not both, the M.B.A. or ABE M.S., all requirements of the individual degree program must be satisfied.

**Courses (ABE)**

Field trips are required for certain courses.

**401-3 Agricultural Law.** Relations of common-law principles and statutory law to land tenure, farm tenancy, farm labor, farm management, taxation and other problems involving agriculture. Prerequisite: junior standing or consent of instructor.

**402-1 to 6 Problems in Agribusiness Economics.** Designed to improve the techniques of agribusiness economics workers through discussion, assignment, and special workshops on problems related to their field. Emphasis will be placed on new innovative and currently developed techniques for the field. Prerequisite: consent of chair.

**405-3 Management of Ethanol Production Facilities.** This course is offered in cooperation with the National Corn-to-Ethanol Laboratory and provides a comprehensive introduction to the management and operation of an ethanol facility as well as overview of today's bio-fuels industry. Topics include: ethanol industry trends and bio-fuels future, corn- to-ethanol production processes, operations control and management, products and co-products, and environmental topics.

**440-3 Natural and Environmental Resource Economics and Policy.** Student will study the application of socioeconomic principles to problems related to natural and environmental resources. The course covers the policy context within which policies related to natural and environmental resources are developed and implemented as well as the range of policy tools available for addressing environmental/natural resource problems. The institutional setting for dealing with natural and environmental resources is presented along with the role of property rights and entitlements. Contemporary resource problems are used as examples. Prerequisite: six hours of agribusiness economics, economics, or geography; graduate status; or consent of instructor.

**442-3 Energy Economics and Policy.** Economic principles and methods are used to examine economic and policy issues relevant to energy production and use. Topics include: key aspects of energy supply, demand, markets, and regulation; environmental externalities of fuel production and use; the relationships among energy use, economic growth and the environment; alternative energy sources. Prerequisite: 6 hours of agribusiness or general economics, geography, or consent of instructor.

**444-3 Agricultural Development.** Students are introduced to economic growth and development theory at an intermediate level. Topics include trends in development in North America and study of theories. The economic theories covered address how growth occurs in developed economies including classical and neoclassical, central place and endogenous growth theories among others. Prerequisites: 6 hours of agribusiness or general economics, geography, or consent of instructor. Same as ABE 544.

**445-3 Methods of Regional Economic Analysis** Students are introduced to regional economic methods at an intermediate level. Students will learn concepts and tools commonly used in regional and community economic analysis. Students will learn to use regional input-output analysis and more technical regional economic models.
450-3 **Advanced Farm Management.** Application of production economic principles and modern decision-making techniques to farm management problems. The importance of information, sources of agricultural risk and management of risk in farm planning will be integrated. Prerequisite: 350 or equivalent and General Education Mathematics requirement.

451-3 **Appraisal of Rural Property.** Principles and practices of rural and farm appraisal. Applications of sales comparison, income capitalization and cost approaches for estimating market value. Consequences of environmental liabilities and regulations on appraisal practices. Understanding of special valuation methods for buildings, insurance, assessments, loans and condemnations. Field trips not to exceed $10. Prerequisite: 350 or consent of instructor.

452-3 **Advanced Agricultural Financial Management.** Focus is on using the financial accounting system recommended by the Farm Financial Standards Council as a base for evaluating the financial performance of farms and agribusinesses. Ratio analysis and DuPont Modeling emphasized. Additional focus on credit markets serving farms and agribusinesses with an emphasis on the Farm Credit System and its affiliated Agricultural Credit Associations. Prerequisite: ABE 351.

453-3 **Agribusiness Planning Techniques.** Application of mathematical programming to agribusiness and farm planning, including enterprise selection, resource allocation, least cost ration formulation, decision making under risk and uncertainty, transportation and location problems. Emphasis placed on modeling problems and interpretation of results. Prerequisite: 350 or consent of instructor.

460-3 **Agricultural Price Analysis and Forecasting.** The focus is on the measurement and interpretation of factors affecting agricultural prices. Methods to analyze the seasonal, cyclical, and trend components of commodity prices are presented. Formal forecasting techniques, including an introduction to statistical and regression methods, are used and explained. Emphasis is placed on the presentation, communication, and evaluation of forecasts in a business environment. Students are given an opportunity to perform applied analysis and present the results. Prerequisite: 318, 362 or equivalent.

461-3 **Agriculture Business Management.** Examination of agribusiness firm management with emphasis on the management and control of financial resources and the interrelationship between the agribusiness firm and human resource management. Other topics in agribusiness will include effective communication in the management process, business ethics and workable credit programs for customers. Prerequisite: 351 and 360 or equivalent.

462-3 **Advanced Agricultural Marketing.** Advanced treatment of marketing issues from both theoretical and practical decision-making perspectives. Marketing margins, intertemporal and spatial price relationships are reviewed in detail. Historical and current grain and livestock price series are utilized in decision-making exercises. Prerequisite: 362 or equivalent.

463-3 **Managerial Strategies for Agribusiness.** Application of Industrial Organization and Strategic Management (Competitive Strategy) principles to address economic and managerial issues related to agriculture and food industries. Particular emphasis on applying those principles to explain structural changes taking place in the agriculture and food supply chain in the United States. Prerequisite: 204, 350 or 360, Economics 240.

500-6 (3,3) **Agribusiness Economics Research Methodology.** (a) Social science research methodology in agriculture, including defining research problems, hypothesis formation, specification of research design, survey methodology, source of data and development of research proposals. (b) A survey of applied techniques and procedures for developing and evaluating agricultural economic research models with an emphasis on multiple regression and time-series models. Prerequisite: Educational Psychology 506 or equivalent.

543-3 **Agricultural Development** Students are introduced to economic growth and development theory at an intermediate level. Topics include trends in development in North America and study of theories. The economic theories covered address how growth occurs in developed economies including classical and neoclassical, central place and endogenous growth theories among others. Prerequisites: 6 hours of agribusiness or general economics, geography, or consent of instructor. Same as ABE 444.

545-3 **Methods of Regional Economic Analysis** Students are introduced to regional economic methods at an intermediate level. Students will learn concepts and tools commonly used in regional and community economic analysis. Students will learn to use regional input-output analysis and more technical regional economic models designed to capture spatial economic variables. Prerequisites: 6 hours of agribusiness or general economics, geography, or consent of instructor. Same as ABE 445.

551-3 **Resource Allocation in the Agribusiness Firm.** An examination of resource allocation in the agribusiness firm. Production decisions, agricultural product price analysis and decision making models are considered. Prerequisite: six hours of agricultural economics or economics or consent of instructor.

552-3 **Problems and Policies of the Agricultural Sector.** An analytical survey of agricultural policy issues including agricultural price and income stabilization; international trade, capital and credit, the structure of agriculture and the quality of life in rural areas. Prerequisite: six hours of agricultural economics or economics or consent of instructor.
581-1 to 4 Seminar in Agribusiness Economics. Seminar on current research and issues in agribusiness economics on topics such as farm management, farm policy, agricultural marketing, farm finance, agricultural prices and international agriculture.

585-1 to 6 Practicum/Internship. Supervised work experience at the graduate level with a public or private agency or firm through which a graduate student can acquire practical professional training to complement their academic course work and research.

588-1 to 8 International Graduate Studies. University residential graduate study program abroad. Prior approval by the department is required both for the nature of program and the number of semester hours of credit.

590-1 to 4 Readings. Readings in specialized topics under the direction of an approved graduate faculty member. Graded S/U only.

593-1 to 4 Individual Research. Directed research in selected topics under the supervision of an approved graduate faculty member. Graded S/U only.

599-1 to 6 Thesis. Work in the research for and presentation of a thesis under the supervision of an approved faculty member. Graded S/U only.

601-1 (per semester) Continuing Enrollment. For those graduate students who have not finished their degree programs and who are in the process of working on their dissertation, thesis, or research paper. The student must have completed a minimum of 24 hours of dissertation research, or the minimum thesis, or research hours before being eligible to register for this course. Concurrent enrollment in any other course is not permitted. Graded S/U or DEF only.