PhD in Agricultural and Applied Economics

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Degree Requirements

The PhD program emphasizes preparation for research, teaching and extension work in academia, as well as for careers in agri-food business, government and international agriculture. The program usually requires about three years beyond the master's program to complete. The size, quality and diversity of the faculty provide a broad choice of advisors and research topics. Students and their advisory committees have latitude in developing a plan of study.

Doctoral candidates will choose specialties from one of the following Focus Areas (FAs) (will not appear on transcripts or diplomas).

**Agricultural Economics and Policy Analysis:** This Focus 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 programing and econometrics. The FA relies on coursework and research with widely recognized centers for agricultural economics, such as the Food and Agricultural Policy Research Institute (FAPRI), Agricultural Markets and Policy (AMAP) and the Economics and Management of Agrobiotechnology Center (EMAC).

**Environmental and Development Economics:** This Focus Area helps students develop skills and knowledge that can be used to address some of society’s most pressing problems. There are many linkages between environmental and natural resource issues and development, both in developed and developing economies. This is particularly true where agriculture plays a significant role in the livelihoods of people and rural communities, since soil and water resources are critical determinants of both agricultural productivity and human well-being. The importance of these linkages is evidenced by the emphasis on sustainable development in policy circles. Institutions affect environmental outcomes, economic development, and risk so comparing institutions across differing contexts can provide useful insights. An emerging research area is behavioral economics, which can be productively applied to environmental and development issues. Students will apply theory from economics and other social sciences using rigorous analytical tools to address real-world problems. We are interested in students who want to create knowledge that matters through translational research.

**Organizational Economics:** The Focus Area represents a coherent area of study for preparing students for academic careers in applied economics, management, and cognate fields, and for careers in government and industry. The program design is based upon a set of courses offered in the Department that support MS and PhD training in microeconomic theory, institutional and neo-institutional economics, and organizational economics. This set of courses is augmented by courses in qualitative and quantitative methods and a cognate area that supports the student’s research. The cognate area is chosen consultation with the major advisor and committee input.

The general course requirements for the PhD consist of theory and methods courses, followed by a well-balanced selection of elective and research courses in agricultural and applied economics and other disciplines at the graduate level. The course of study will prepare students for the qualifying exam taken after the first year of courses, the comprehensive exam assessing competency in his or her chosen field of study, and independent research. A dissertation embodying the results of original research must be written on a subject approved by the program committee. An oral examination over the dissertation completes the degree requirements.

The minimum requirements for the PhD are as follows:

- 72 credit hours (minimum) from courses numbered 7000 – 9000, and within the 72 credit minimum are the following constraints:
  - No more than 30 credit hours can be transferred from an MS program
  - 15 credits must be from courses numbered 8000 – 9000, exclusive of dissertation research, problems or independent study
  - 6 credit hours designated as the PhD FA Theory core
  - 6 credit hours designated as the PhD FA Methods core (can be met from any combination of quantitative, qualitative, mixed or other methods courses)
  - 3 credit hours of AG_EC 8010 Research Methodology
  - 12 credit hours of AG_EC 9090 Doctoral Dissertation Research in Agricultural Economics
  - 45 credit hours designated as electives and/or additional required EA courses

Prerequisites for the PhD program include courses in intermediate microeconomics and macroeconomics; quantitative or mathematical economics; statistics, econometrics or regression and correlation analysis; and calculus. A master’s degree in economics, agricultural economics, or a related field, is preferred but not required for admittance into the PhD program. However, applicants to the PhD program without a master’s degree will be admitted initially into the MS program with the expectation that they complete the MS degree including MS thesis before continuing with their doctoral studies.

Sample Plan of Study

Fall semester, year 1: AG_EC 9040 Advanced Microeconomics Theory and Applications I; FA methods course; Elective

Spring semester, year 1: AG_EC 8010 Research Methodology; FA theory course; FA core course or Elective

Fall semester, year 2: FA field courses and/or Electives

Spring semester, year 2: FA field courses and/or Electives

Subsequent semesters: Field Courses and/or Electives; Research and Dissertation hours

Qualifying Process

After completing the first year sequence, students complete a qualifying exam process determined by the research Focus Area faculty. Examinations are completed in May with a retake, if needed, offered in August. Students must pass the qualifying exam process to continue in the PhD program.
Comprehensive Examination Process

Students take the Comprehensive Exam after passing the qualifying exam process and completing coursework, including core courses and field courses. The Comprehensive Exam consists of three parts: the written dissertation proposal, a written comprehensive exam, and an oral examination. The Comprehensive Exam is administered by the student’s Doctoral Program Committee.

Dissertation Requirements

Two types of dissertations are acceptable. The first type of dissertation is organized around a single topic and typically is a lengthy monograph of your research findings. The second type of dissertation is a compilation of three narrow-topic essays that are loosely related to a single, general theme or topic. Students select dissertation topics in consultation with their Doctoral Program Committee.

Admissions

The Department’s Graduate Studies Committee and Focus Area faculty oversee the admissions process. Admission into the PhD program is determined by an assessment of program prerequisites and application materials. Domestic and international students are equally welcome to apply.

For More Information

For further information on admissions or financial assistance, write to Harvey James, director of graduate studies in agricultural economics, 200 Mumford Hall, Columbia, MO 65211, or hjames@missouri.edu.