AGRICULTURAL AND RESOURCE ECONOMICS, DOCTOR OF PHILOSOPHY (PH.D.)

Requirements for the Ph.D. degree include a minimum of 42 credits of coursework, completion of a four course field, 12 credits of Ph.D. dissertation research (AREC899), development of a research paper worthy of submission to a well-regarded journal, development and defense of a dissertation prospectus, and successful defense of a Ph.D. dissertation.

Course | Title | Credits
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ECON603 | Microeconomic Analysis I | 3
AREC623 | Applied Econometrics I | 4
AREC624 | Applied Econometrics II | 4
AREC620 | Optimization in Agricultural and Resource Economics | 3
AREC610 | Microeconomic Applications in Agricultural and Resource Markets | 3
ECON604 | Microeconomic Analysis II | 3

Select six elective courses, at least four of which must be chosen from the following:

- AREC783 Environmental Taxation and Regulation
- AREC785 Advanced Economics of Natural Resources
- AREC815 Experimental and Behavioral Economics
- AREC825 Advanced Economic Welfare Analysis
- AREC832 Advanced Agricultural Policy Analysis
- AREC845 Environment and Development Economics
- AREC846 Development Microeconomics
- ECON781 Valuing Environmental Benefits
- AREC891 Introduction to Prospectus Development
- AREC892 Dissertation Prospectus Development

**Dissertation Research Requirements**

- AREC899 Doctoral Dissertation Research (minimum of 12 research credits) | 12

Total Credits | 54

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1. During the spring semester of their second-year, students are also required to take a 1-credit course intended to help students develop a dissertation topic.

2. This requirement is waived for any student who has completed a dissertation prospectus and passed a prospectus examination before the fall semester of the third year.

The Ph.D. program trains students to design, perform, lead, and implement economic research projects in the fields of environmental and resource economics, agricultural economics, and development economics. It also trains students in how to disseminate research results in the major professional media including journals, reports, conferences, and seminars. It provides rigorous training in microeconomic theory and econometrics and in the application of microeconomics and econometrics to policy issues. Students completing their Ph.D. degrees find employment in academia, U.S. government agencies, international organizations, and consulting firms.

The first year of the program consists of basic coursework in microeconomic theory, econometrics, and mathematical methods. It consists of the following courses: A two-semester sequence in microeconomic theory (ECON603 and ECON604); A two-semester sequence in applied econometrics (AREC623 and AREC624); A one-semester course on mathematical optimization (AREC620); A one-semester course on applications of microeconomic theory to agricultural and resource economics (AREC610).

Students must earn a ‘B’ or better in each of these courses and a B (3.0) average or better in graduate coursework. If necessary, students can re-take these courses one time to achieve this standard. The first-year course requirements account for 20 credits (3 credits each for ECON603, ECON604, AREC620, and AREC624). First-year students are also expected to complete self-directed instruction regarding econometric software during August and January, attend additional instruction and develop qualifying paper topics during January, and participate in a paper-writing workshop in June at the end of the first year. The June workshop helps students develop their research for publication in academic journals as well as oral presentation. This workshop is useful for fostering the completion of the required research paper.

The second year of the program consists mainly of six elective courses. All students are required to take four courses from among the following courses offered in AREC: AREC783, AREC785, AREC815, AREC825, AREC832, AREC845, AREC846, and ECON781 with the remainder from that list, from graduate courses offered by the Economics Department or (with approval by the Director of Graduate Studies) from another supporting department on campus.