

# 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.

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.

Students must earn a 'B-' or better in each of these courses and a B (3.0) average or better in graduate coursework. 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.

**Advancement to Candidacy:** In addition to the course requirements below, students are required to submit and pass the Qualifying Paper, develop a research paper worthy of submission to a well-regarded journal, and pass the Ph.D. dissertation prospectus in order to advance to doctoral candidacy.

| Course   | Title  | Credits |
|--|--|---------|
| Required courses:  |  |         |
| 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: |  | 18      |
| AREC784  | Energy Economics, Empirical Industrial Organization, and Public Policy |         |
| AREC829  | Policy Design and Causal Inference for Social Science                  |         |

|   |   |           |
|---|---|-----------|
| AREC847                                   | Networks, Social Learning and Technology Adoption               |           |
| AREC783                                   | Environmental Taxation and Regulation                           |           |
| AREC785                                   | Advanced Economics of Natural Resources                         |           |
| AREC815                                   | Experimental and Behavioral Economics                           |           |
| AREC825                                   |   |           |
| AREC832                                   | Agricultural Policy Analysis                                    |           |
| AREC846                                   |   |           |
| ECON781                                   | Valuing Environmental Benefits                                  |           |
| AREC891                                   | Introduction to Prospectus Development <sup>1</sup>             | 1         |
| AREC892                                   | Dissertation Prospectus Development <sup>2</sup>                | 3         |
| <b>Dissertation Research Requirements</b> |   |           |
| AREC899                                   | Doctoral Dissertation Research (minimum of 12 research credits) | 12        |
| <b>Total Credits</b>                      |   | <b>54</b> |

<sup>1</sup> 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.

<sup>2</sup> 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.