# PH.D. IN AGRICULTURAL AND RESOURCE ECONOMICS

The Ph.D. offered by the Department of Agricultural and Resource Economics consists of 72 credits plus a substantial work of original research in the form of a dissertation. Completion of the Ph.D. in Agricultural and Resource Economics generally signifies a mastery of advanced microeconomic theory and quantitative methods, with a particular expertise in either agricultural economics or environmental and natural resource economics. Ph.D. graduates are experts in applied economics and are trained to develop and execute innovative research programs, teach undergraduate and graduate level economics courses, and present theoretical and applied economic concepts and results to a wide variety of audiences. Graduates of this program have gone on to succeed in a variety of positions at universities, in the public sector (e.g. USDA, ERS), and private enterprises including consulting firms.

Students interested in graduate work should refer to the Graduate and Professional Bulletin (https://catalog.colostate.edu/general-catalog/graduate-bulletin/).

## Learning Objectives

Upon successful completion, students will be able to:

1. Apply research that contributes understanding and solutions to problems relevant to their sub-discipline specialties.
2. Communicate economic concepts, analysis, and findings in both oral and written forms across a wide range of professional settings.
3. Teach economic theory and methods as applied to agricultural and natural resource problems.

## Requirements Effective Fall 2020

| Code | Title | Credits |
|---|---|---|
| **Core Courses** | | |
| AREC 506/ECON 506 | Applied Microeconomic Theory | 3 |
| AREC 570/ECON 530 | Methodology of Economic Research | 3 |
| AREC 606/ECON 606 | Microeconomic Analysis I | 3 |
| AREC 615 | Optimization Methods for Applied Economics | 3 |
| AREC 635/ECON 635 | Econometric Theory I | 3 |
| AREC 706/ECON 706 | Microeconomic Analysis II | 3 |
| AREC 735/ECON 735 | Econometric Theory II | 2 |
| AREC 770 | Advanced Methods in Applied Economics | 3 |
| ECON 501 | Quantitative Methods for Economists | 3 |
| **Field Courses** | | |
| Select one from the following: | | 9-12 |
| Group A: | | |
| AREC 605 | Agricultural Production and Cost Analysis | |
| AREC 610 | Agricultural Marketing and Demand Analysis | |
| AREC 705 | Advanced Production and Technological Change | |
| AREC 710 | Advanced Agricultural Marketing Issues | |
| Group B: | | |
| AREC 540/ ECON 540 | Environmental and Natural Resource Economics | |
| AREC 740/ ECON 740 | Advanced Natural Resource Economics | |
| AREC 741/ ECON 741 | Advanced Environmental Economics | |
| **Electives** | | |
| Electives [1,2] | | 22-25 |
| **Research and Dissertation** | | |
| AREC 799 | Dissertation | 12 |
| **Exams** | | |
| Exams [3] | | 0 |
| **Program Total Credits:** | | **72** |

A minimum of 72 credits are required to complete this program.

1. Select courses with approval of advisor and committee.
2. Student may apply an earned Master's degree for up to 30 credits toward the PhD requirements. Specific course requirements will be substituted where evidence of equivalent learning outcomes is demonstrated.
3. Students must pass the written Ph.D. Qualifying Examinations in Quantitative Methods and in Microeconomics, the field Examination, the preliminary Oral Examination, and the final Oral Examination.

## Requirements for All Graduate Degrees

For more information, please visit Requirements for All Graduate Degrees (https://catalog.colostate.edu/general-catalog/graduate-bulletin/graduate-study/procedures-requirements-all-degrees/) in the Graduate and Professional Bulletin (https://catalog.colostate.edu/general-catalog/graduate-bulletin/).

## Summary of Procedures for the Master's and Doctoral Degrees

NOTE: Each semester the Graduate School publishes a schedule of deadlines. Deadlines are available on the Graduate School website (https://graduateschool.colostate.edu/deadline-dates/). Students should consult this schedule whenever they approach important steps in their careers.

Forms (https://graduateschool.colostate.edu/forms/) are available online.

| Step | Due Date |
|---|---|
| 1. Application for admission (online) | Six months before first registration |
| 2. Diagnostic examination when required | Before first registration |
| 3. Appointment of advisor | Before first registration |
| 4. Selection of graduate committee | Before the time of fourth regular semester registration |
| 5. Filing of program of study (GS Form 6) | Before the time of fourth regular semester registration |
| 6. Preliminary examination (Ph.D. and PD) | Two terms prior to final examination |

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| 7. Report of preliminary examination (GS Form 16) - (Ph.D. and PD) | Within two working days after results are known |
| 8. Changes in committee (GS Form 9A) | When change is made |
| 9. Application for Graduation (GS Form 25) | Refer to published deadlines from the Graduate School Website |
| 9a. Reapplication for Graduation (online) | Failure to graduate requires Reapplication for Graduation (online) for the next time term for which you are applying |
| 10. Submit thesis or dissertation to committee | At least two weeks prior to the examination or at the discretion of the graduate committee |
| 11. Final examination | Refer to published deadlines from the Graduate School Website |
| 12. Report of final examination (GS Form 24) | Within two working days after results are known; refer to published deadlines from the Graduate School website |
| 13. Submit a signed Thesis/ Dissertation Submission Form (GS Form 30) to the Graduate School and Submit the Survey of Earned Doctorates (Ph.D. only) prior to submitting the electronic thesis/ dissertation | Refer to published deadlines from the Graduate School website. |
| 14. Submit the thesis/dissertation electronically | Refer to published deadlines from the Graduate School website |
| 15. Graduation | Ceremony information is available from the Graduate School website |