

# Agricultural and Resource Economics

The Department of Agricultural and Resource Economics offers programs leading to PhD degrees. Due to quota limitations, students are rarely admitted for the master's degree, although it may be awarded to students who are pursuing work toward the PhD in our program (or in another field at Berkeley) after fulfillment of the appropriate MS requirements.

The Agricultural and Resource Economics Program is relatively flexible; however, the program stresses economic theory, quantitative methods, and two elective fields defined in consultation with the graduate adviser. Some common elective fields include development economics, natural resource or environmental economics, agricultural policy, and international markets and trade.

## Admission to the University

### Minimum Requirements for Admission

The following minimum requirements apply to all graduate programs and will be verified by the Graduate Division:

1. A bachelor's degree or recognized equivalent from an accredited institution;
2. A grade point average of B or better (3.0);
3. If the applicant has completed a basic degree from a country or political entity (e.g., Quebec) where English is not the official language, adequate proficiency in English to do graduate work, as evidenced by a TOEFL score of at least 90 on the iBT test, 570 on the paper-and-pencil test, or an IELTS Band score of at least 7 on a 9-point scale (note that individual programs may set higher levels for any of these); and
4. Sufficient undergraduate training to do graduate work in the given field.

### Applicants Who Already Hold a Graduate Degree

The Graduate Council views academic degrees not as vocational training certificates, but as evidence of broad training in research methods, independent study, and articulation of learning. Therefore, applicants who already have academic graduate degrees should be able to pursue new subject matter at an advanced level without the need to enroll in a related or similar graduate program.

Programs may consider students for an additional academic master's or professional master's degree only if the additional degree is in a distinctly different field.

Applicants admitted to a doctoral program that requires a master's degree to be earned at Berkeley as a prerequisite (even though the applicant already has a master's degree from another institution in the same or a closely allied field of study) will be permitted to undertake the second master's degree, despite the overlap in field.

The Graduate Division will admit students for a second doctoral degree only if they meet the following guidelines:

1. Applicants with doctoral degrees may be admitted for an additional doctoral degree only if that degree program is in a general area of knowledge distinctly different from the field in which they earned their original degree. For example, a physics PhD could be admitted to a

doctoral degree program in music or history; however, a student with a doctoral degree in mathematics would not be permitted to add a PhD in statistics.

2. Applicants who hold the PhD degree may be admitted to a professional doctorate or professional master's degree program if there is no duplication of training involved.

Applicants may apply only to one single degree program or one concurrent degree program per admission cycle.

## Required Documents for Applications

1. **Transcripts:** Applicants may upload *unofficial* transcripts with your application for the departmental initial review. Unofficial transcripts must contain specific information including the name of the applicant, name of the school, all courses, grades, units, & degree conferral (if applicable).
2. **Letters of recommendation:** Applicants may request online letters of recommendation through the online application system. Hard copies of recommendation letters must be sent directly to the program, by the recommender, not the Graduate Admissions.
3. **Evidence of English language proficiency:** All applicants who have completed a basic degree from a country or political entity in which the official language is not English are required to submit official evidence of English language proficiency. This applies to institutions from Bangladesh, Burma, Nepal, India, Pakistan, Latin America, the Middle East, the People's Republic of China, Taiwan, Japan, Korea, Southeast Asia, most European countries, and Quebec (Canada). However, applicants who, at the time of application, have already completed at least one year of full-time academic course work with grades of B or better at a US university may submit an official transcript from the US university to fulfill this requirement. The following courses will not fulfill this requirement:

- courses in English as a Second Language,
- courses conducted in a language other than English,
- courses that will be completed after the application is submitted, and
- courses of a non-academic nature.

Applicants who have previously applied to Berkeley must also submit new test scores that meet the current minimum requirement from one of the standardized tests. Official TOEFL score reports must be sent directly from Educational Test Services (ETS). The institution code for Berkeley is 4833 for Graduate Organizations. Official IELTS score reports must be sent electronically from the testing center to University of California, Berkeley, Graduate Division, Sproul Hall, Rm 318 MC 5900, Berkeley, CA 94720. TOEFL and IELTS score reports are only valid for two years prior to beginning the graduate program at UC Berkeley. Note: score reports can not expire before the month of June.

## Where to Apply

Visit the Berkeley Graduate Division application page (<http://grad.berkeley.edu/admissions/apply/>).

## Curriculum

A,RESEC 201	Production, Industrial Organization, and Regulation in Agriculture	4
A,RESEC 202	Issues and Concepts in Agricultural Economics	4

A,RESEC 210	Probability and Statistics	4
A,RESEC 212	Econometrics: Multiple Equation Estimation	4
A,RESEC 213	Applied Econometrics	4
A,RESEC 219A	Econometric Project Workshop	2
A,RESEC 219B	Econometric Project Workshop	2
ECON 201A	Economic Theory	4
ECON 201B	Economic Theory	4
ECON 202A	Macroeconomics	4
or ECON 202B	Macroeconomics	
MATH 104	Introduction to Analysis	4
or ECON 204	Mathematical Tools for Economics	

## Agricultural and Resource Economics

Expand all course descriptions [+]Collapse all course descriptions [-]

### A,RESEC 201 Production, Industrial Organization, and Regulation in Agriculture 4 Units

Terms offered: Fall 2023, Fall 2022, Fall 2021

Basic concepts of micro and welfare economics: partial and general equilibrium. Industrial organization: monopolistic competition, vertical integration, price discrimination, and economics of information with applications to food retailing, cooperatives, fishing, and energy.

Production, Industrial Organization, and Regulation in Agriculture: Read More [+]

#### Rules & Requirements

**Prerequisites:** Economics 201A or equivalent or consent of instructor

#### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

#### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Production, Industrial Organization, and Regulation in Agriculture: Read Less [-]

### A,RESEC 202 Issues and Concepts in Agricultural Economics 4 Units

Terms offered: Spring 2023, Spring 2022, Spring 2021

History, institutions, and policies affecting agriculture markets and environmental quality. Producer behavior over time and under uncertainty. Asset fixity and agricultural supply models.

Issues and Concepts in Agricultural Economics: Read More [+]

#### Rules & Requirements

**Prerequisites:** Economics 201A-201B or consent of instructor

#### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

#### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Issues and Concepts in Agricultural Economics: Read Less [-]

### A,RESEC 210 Probability and Statistics 4 Units

Terms offered: Fall 2023, Fall 2022, Fall 2021

This is an introduction to probability theory and statistical inference. It is primarily intended to prepare students for the graduate econometrics courses 212 and 213. The emphasis of the course is on the principles of statistical reasoning. Probability theory will be discussed mainly as a background for statistical theory and specific models will, for the most part, be considered only to illustrate the general statistical theory as it is developed.

Probability and Statistics: Read More [+]

#### Rules & Requirements

**Prerequisites:** Graduate standing or consent of instructor

#### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of lecture and 1 hour of discussion per week

#### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

**Instructor:** Mahajan

Probability and Statistics: Read Less [-]

## A,RESEC 211 Mathematical Methods for Agricultural and Resource Economists 4 Units

Terms offered: Fall 2015, Fall 2014, Fall 2013

The goal of this course is to provide entering graduate students with the basic skills required to perform effectively in the graduate program and as professional economists. The lectures place heavy emphasis on intuition, graphical representations, and conceptual understanding. Weekly problem sets provide the opportunity to master mechanical skills and computational techniques. Topics covered include real analysis, linear algebra, multivariable calculus, theory of static constrained optimization, and comparative statics.

Mathematical Methods for Agricultural and Resource Economists: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of lecture and 1 hour of discussion per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Mathematical Methods for Agricultural and Resource Economists: Read Less [\[-\]](#)

## A,RESEC 212 Econometrics: Multiple Equation Estimation 4 Units

Terms offered: Spring 2023, Spring 2022, Spring 2021

Introduction to the estimation and testing of economic models. Includes analysis of the general linear model, asymptotic theory, instrumental variable, and the generalized method of moments. In addition, a survey of time series, analysis, limited dependent variables.

Econometrics: Multiple Equation Estimation: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** 211 or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of lecture and 1 hour of discussion per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Econometrics: Multiple Equation Estimation: Read Less [\[-\]](#)

## A,RESEC 213 Applied Econometrics 4 Units

Terms offered: Fall 2023, Fall 2022, Fall 2021

Standard and advanced econometric techniques are applied to topics in agriculture and resource economics. Techniques include limited dependent variables, time series analysis, and nonparametric analysis. Students will use computers to conduct statistical analyses.

Applied Econometrics: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** 211 and 212 or equivalent or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 3 hours of laboratory per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Applied Econometrics: Read Less [\[-\]](#)

## A,RESEC 214 New Econometric and Statistical Techniques 4 Units

Terms offered: Spring 2012, Spring 2011, Spring 2010

Theory and application of new and emerging approaches to estimation and inference. Bayesian, maximum entropy, and other new applications to economic problems will be emphasized. Students will use computers to conduct statistical analyses.

New Econometric and Statistical Techniques: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** 211, 213 or equivalent or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 3 hours of laboratory per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

New Econometric and Statistical Techniques: Read Less [\[-\]](#)

## A,RESEC 219A Econometric Project Workshop 2 Units

Terms offered: Fall 2023, Fall 2022, Fall 2021

Techniques for preparing econometric studies, including finding data sources, the reporting of results, and standards for placing research questions with existent literature. With faculty guidance, students prepare approved econometric projects, present projects to the class, provide comments on other student projects, and revise projects in response to faculty and student comments.

Econometric Project Workshop: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** 210, 211, and 212 or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

**Instructors:** Auffhammer, Sadoulet

Econometric Project Workshop: [Read Less](#) [-]

## A,RESEC 219B Econometric Project Workshop 2 Units

Terms offered: Spring 2023, Spring 2022, Spring 2021

Techniques for preparing econometric studies, including finding data sources, the reporting of results, and standards for placing research questions with existent literature. With faculty guidance, students prepare approved econometric projects, present projects to the class, provide comments on other student projects, and revise projects in response to faculty and student comments.

Econometric Project Workshop: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** 210, 211, and 212 or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

**Instructors:** Auffhammer, Sadoulet

Econometric Project Workshop: [Read Less](#) [-]

## A,RESEC 232 Empirical International Trade and Investment 2 Units

Terms offered: Spring 2010, Spring 2009, Spring 2007

Empirical aspects on international trade, foreign investment, and the environment. Issues related to testing various trade models. Topics include: testing trade models (HO, Ricardo, Specific Sector); gravity models; linkages between openness and growth; trade orientation and firm performance; pattern of trade; trade and the environment; labor markets and trade. New topics in international trade with empirical applications, such as trade models with heterogeneous firms, outsourcing and foreign investment.

Empirical International Trade and Investment: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 8 weeks - 2 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Empirical International Trade and Investment: [Read Less](#) [-]

## A,RESEC 241 Economics and Policy of Production, Technology and Risk in Agricultural and Natural Resources 3 Units

Terms offered: Fall 2023, Fall 2022, Fall 2017

This course covers alternative models of production, resource and environmental risk management; family production function; adoption and diffusion; innovation and intellectual property rights; agricultural and environmental policies and their impact on production and the environment; water resources; pest control; biotechnology; and optimal control over space and time.

Economics and Policy of Production, Technology and Risk in Agricultural and Natural Resources: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** 201 and 202, or Economics 201A-201B, or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Economics and Policy of Production, Technology and Risk in Agricultural and Natural Resources: [Read Less](#) [-]

## A,RESEC 242 Quantitative Policy Analysis 3 Units

Terms offered: Spring 2023, Spring 2022, Spring 2021

Production versus predatory government behavior, rent seeking, social waste, and their trade-offs with the provision of growth-promoting public goods. Three failure types are distinguished: market, government, and organizational. The roles of public versus special interests are modeled to determine degree and extent of organizational failures in collective group behavior. Alternative frameworks are used to evaluate various types of policy reform.

Quantitative Policy Analysis: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** 211 or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Quantitative Policy Analysis: Read Less [\[-\]](#)

## A,RESEC 249 Agricultural, Food, and Resource Policy Workshop 1 Unit

Terms offered: Fall 2023, Spring 2023, Fall 2022

Presentation and criticism of ongoing research by faculty, staff and students. Not necessarily offered every semester.

Agricultural, Food, and Resource Policy Workshop: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

Agricultural, Food, and Resource Policy Workshop: Read Less [\[-\]](#)

## A,RESEC C251 Microeconomics of Development 3 Units

Terms offered: Fall 2023, Fall 2022, Fall 2021

Theoretical and empirical analyses of poverty and inequality, household and community behavior, and contract and institutions in the context of developing countries.

Microeconomics of Development: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

**Also listed as:** ECON C270A

Microeconomics of Development: Read Less [\[-\]](#)

## A,RESEC C253 International Economic Development Policy 3 Units

Terms offered: Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2020, Fall 2019, Fall 2018

This course emphasizes the development and application of policy solutions to developing-world problems related to poverty, macroeconomic policy, and environmental sustainability. Methods of statistical, economic, and policy analysis are applied to a series of case studies. The course is designed to develop practical professional skills for application in the international arena.

International Economic Development Policy: Read More [\[+\]](#)

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

**Also listed as:** DEVP C253/PUB POL C253

International Economic Development Policy: Read Less [\[-\]](#)

## A,RESEC 259 Rural Economic Development Workshop 1 Unit

Terms offered: Fall 2023, Spring 2023, Fall 2022

Presentation and criticism of ongoing research by faculty, staff and students. Not necessarily offered every semester.

Rural Economic Development Workshop: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

Rural Economic Development Workshop: [Read Less](#) [-]

## A,RESEC 261 Environmental and Resource Economics 3 Units

Terms offered: Fall 2023, Fall 2022, Fall 2021

Theory of renewable and nonrenewable natural resource use, with applications to forests, fisheries, energy, and climate change. Resources, growth, and sustainability. Economic theory of environmental policy. Externality; the Coasian critique; tax incidence and anomalies; indirect taxes; the double dividend; environmental standards; environmental regulation; impact of uncertainty on taxes and standards; mechanism design; monitoring, penalties, and regulatory strategy; emissions markets. Environmental and Resource Economics: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Ph.D.-level economic theory or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Environmental and Resource Economics: [Read Less](#) [-]

## A,RESEC 262 Non-market Valuation 3 Units

Terms offered: Spring 2014, Spring 2012, Spring 2011

The economic concept of value; historical evolution of market and non-market valuation; revealed preference methods: single site demand, multi-site demand, corner solution models, and valuation of quality changes; averting behavior; the hedonic method; contingent valuation; other stated preference methods: ranking, choice, conjoint analysis; the value of life and safety; sampling and questionnaire design for valuation surveys.

Non-market Valuation: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Ph.D.-level economic theory or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Non-market Valuation: [Read Less](#) [-]

## A,RESEC 263 Dynamic Methods in Environmental and Resource Economics 3 Units

Terms offered: Spring 2018, Spring 2016, Fall 2013

This course studies methods of analysis and optimal control of dynamic systems, emphasizing applications in environmental and natural resource economics. Continuous-time deterministic models are studied using phase plane analysis, the calculus of variations, the Maximum Principle, and dynamic programming. Numerical methods are applied to discrete time stochastic and deterministic dynamic models.

Dynamic Methods in Environmental and Resource Economics: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Ph.D.-level economic theory or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Dynamic Methods in Environmental and Resource Economics: [Read Less](#) [-]



## A,RESEC 264 Empirical Energy and Environmental Economics 3 Units

Terms offered: Spring 2023, Spring 2022, Spring 2021

This course is designed to help prepare graduate students to conduct empirical research in energy and environmental economics. The course has two broad objectives. The first is to develop an in-depth understanding of specific empirical methods and research designs that are routinely used in the field of energy and environmental economics. The second is to familiarize students with some of the economic theories and institutions that are most relevant to empirical work in this area. Empirical Energy and Environmental Economics: Read More [+]

### Rules & Requirements

**Prerequisites:** 212 and 213; or equivalent

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

**Instructor:** Fowlie

Empirical Energy and Environmental Economics: Read Less [-]

## A,RESEC 265 Advanced Topics in Environmental and Resource Economics 3 Units

Terms offered: Fall 2015

Advanced topics in environmental and resource economics. Topics vary and include the economics of land, water, fisheries, forestry, pesticides, endangered species, policy instruments for environmental policy, and empirical evaluations of environmental and resource policy. Advanced Topics in Environmental and Resource Economics: Read More [+]

### Rules & Requirements

**Prerequisites:** Ph.D.-level economic theory and econometrics or consent of instructor

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of discussion per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

**Instructors:** Berck, Sunding

Advanced Topics in Environmental and Resource Economics: Read Less [-]

## A,RESEC 269 Natural Resource Economics Workshop 1 Unit

Terms offered: Fall 2023, Spring 2023, Fall 2022

Presentation and criticism of ongoing research by faculty, staff, and students. Not necessarily offered every semester.

Natural Resource Economics Workshop: Read More [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

Natural Resource Economics Workshop: Read Less [-]

## A,RESEC 298 Special Study for Graduate Students 1 - 6 Units

Terms offered: Fall 2023, Spring 2023, Fall 2022

All properly qualified graduate students who wish to pursue a special field of study may do so if their proposed program of study is acceptable to the member here of the staff with whom they work.

Special Study for Graduate Students: Read More [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1-6 hours of independent study per week

### Summer:

6 weeks - 1-6 hours of independent study per week

8 weeks - 1-6 hours of independent study per week

### Additional Details

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Letter grade.

Special Study for Graduate Students: Read Less [-]

## **A,RESEC 299 Individual Research 1 - 12 Units**

Terms offered: Fall 2023, Spring 2023, Fall 2022

Individual Research: Read More [+]

### **Rules & Requirements**

**Prerequisites:** Graduate standing and consent of instructor

**Repeat rules:** Course may be repeated for credit without restriction.

### **Hours & Format**

**Fall and/or spring:** 15 weeks - 1-12 hours of independent study per week

### **Additional Details**

**Subject/Course Level:** Agricultural and Resource Economics/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

Individual Research: Read Less [-]

## **A,RESEC 375 Professional Preparation: Teaching of Environmental Economics and Policy 1 - 6 Units**

Terms offered: Fall 2023, Fall 2022, Fall 2021

Discussion, problem review and development, guidance of discussion classes, course development, supervised practice teaching.

Professional Preparation: Teaching of Environmental Economics and Policy: Read More [+]

### **Rules & Requirements**

**Prerequisites:** Graduate standing, appointment as a graduate student instructor, or consent of instructor

**Repeat rules:** Course may be repeated for credit without restriction.

### **Hours & Format**

**Fall and/or spring:** 15 weeks - 1-2 hours of lecture and 1-2 hours of discussion per week

### **Additional Details**

**Subject/Course Level:** Agricultural and Resource Economics/Professional course for teachers or prospective teachers

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Formerly known as:** Agriculture and Resource Economics 300

Professional Preparation: Teaching of Environmental Economics and Policy: Read Less [-]

## **A,RESEC 400 Professional Training in Research Methodology 1 - 6 Units**

Terms offered: Fall 2023, Spring 2023, Fall 2022

Individual training for graduate students in planning and performing research under the supervision of a faculty adviser, intended to provide academic credit for the experience obtained while holding a research assistantship.

Professional Training in Research Methodology: Read More [+]

### **Rules & Requirements**

**Prerequisites:** Graduate student researcher appointment

**Repeat rules:** Course may be repeated for credit without restriction.

### **Hours & Format**

**Fall and/or spring:** 15 weeks - 1-6 hours of independent study per week

### **Additional Details**

**Subject/Course Level:** Agricultural and Resource Economics/Other professional

**Grading:** Offered for satisfactory/unsatisfactory grade only.

Professional Training in Research Methodology: Read Less [-]

## **A,RESEC 602 Individual Study for Doctoral Students 1 - 12 Units**

Terms offered: Fall 2023, Spring 2023, Fall 2022

Individual study in consultation with the major field adviser, intended to provide an opportunity for qualified students to prepare themselves for the various examinations required for candidates of the Ph.D. May not be used for unit or residence requirements for the doctoral degree.

Individual Study for Doctoral Students: Read More [+]

### **Rules & Requirements**

**Repeat rules:** Course may be repeated for credit without restriction.

### **Hours & Format**

**Fall and/or spring:** 15 weeks - 1-12 hours of independent study per week

### **Additional Details**

**Subject/Course Level:** Agricultural and Resource Economics/Graduate examination preparation

**Grading:** Offered for satisfactory/unsatisfactory grade only.

Individual Study for Doctoral Students: Read Less [-]