

Environmental Economics and Policy

Bachelor of Arts (BA) or Bachelor of Science (BS)

The Rausser College of Natural Resources and the College of Letters & Science jointly offer the undergraduate major in Environmental Economics and Policy (EEP). This major offers an opportunity to explore aspects of economic and political institutions that affect the development and management of natural resources and the environment. The program takes a problem-solving approach to issues involving renewable and fixed natural resources, and it is based on a foundation in microeconomic theory and the economics of resources and the environment. The environmental economics and policy program is offered by the Department of Agricultural and Resource Economics.

This major leads to a Bachelor of Science (BS) degree (for students in Rausser College) or a Bachelor of Arts (BA) degree (for students in the College of Letters & Science).

Students who graduate with a degree in environmental economics and policy go on to a variety of jobs or graduate programs.

Admission to the Major

Advice on admission for freshmen and transfer students can be found on Rausser College's Admissions Guide website (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/natural-resources/#admissiontext>) or Rausser College's Prospective Student website (<https://nature.berkeley.edu/prospective-students/>). Freshman students may apply directly to the major or may select Rausser College's undeclared option, and declare the major by the end of their fourth semester. Transfer students may apply directly to the major through Rausser College (B.S. degree) and, if admitted, be declared as EEP majors. Transfers may also apply to the major through the College of Letters & Science (B.A. degree) but, if admitted, will be undeclared.

Information for current Berkeley students who would like to declare the major after admission, including information on a change of major or change of college, please see Chapter 6 of the Rausser College of Natural Resources Undergraduate Student Handbook. (<https://nature.berkeley.edu/handbook/>)

Honors Program

Students with a GPA of 3.6 or higher may enroll in Rausser College's honors program (H196) once they have reached upper division standing. To fulfill the program requirements, students design, conduct, and report on an individual research project, working with a faculty sponsor. For further information about registration for the honors symposium or the honors requirements, please see Rausser College's website (http://nature.berkeley.edu/site/honors_program.php).

Minor Program

The minor program offers interested students an opportunity to explore aspects of economic and political institutions that affect the development and management of natural resources and the environment. For information regarding how to declare the minor, please contact the department.

In addition to the University, campus, and college requirements, listed on the College Requirements tab, students must fulfill the below requirements specific to their major program.

General Guidelines

1. All courses taken to fulfill the major requirements below must be taken for graded credit, other than courses listed which are offered on a *Pass/No Pass* basis only. Other exceptions to this requirement are noted as applicable.
2. A minimum cumulative grade point average (GPA) of 2.0 is required.
3. A minimum GPA of 2.0 in upper division major requirements is required.
4. At least 15 of the 36 required upper division units must be taken in the Rausser College of Natural Resources.
5. A maximum of 16 units of independent study (courses numbered 97, 98, 99, 197, 198, and 199) may count toward graduation, with a maximum of 4 units of independent study per semester.
6. No more than 1/3 of the total units attempted at UC Berkeley may be taken *Pass/No Pass*. This includes units in the Education Abroad Program and UC Inter-campus Visitor or Exchange Programs.
7. A maximum of 4 units of physical education courses will count toward graduation.

For information regarding residence requirements and unit requirements, please see the College Requirements tab.

Lower Division Requirements

Principles of microeconomics, select one of the following:

ENVECON C1	Introduction to Environmental Economics and Policy [4]
ECON 1	Introduction to Economics [4]
ECON 2	Introduction to Economics--Lecture Format [4]
ECON C3	Introduction to Environmental Economics and Policy [4]

Calculus, select one of the following sequences:

MATH 1A & MATH 1B	Calculus and Calculus
MATH 16A & MATH 16B	Analytic Geometry and Calculus and Analytic Geometry and Calculus

Statistics, select one of the following:

STAT 20	Introduction to Probability and Statistics [4]
STAT 21	Introductory Probability and Statistics for Business [4]

Upper Division Requirements

Intermediate microeconomics, select one of the following:

ENVECON 100	Microeconomic Theory with Application to Natural Resources [4]
ECON 100A	Microeconomics [4]
ECON 101A	Microeconomics (Math Intensive) [4]

Environmental or natural resource economics

ENVECON C101	Environmental Economics	4
or ENVECON C	Natural Resource Economics	

Quantitative methods:

ENVECON C11Introductory Applied Econometrics [4]

Upper division electives

Select five courses

Three courses must be upper division ENVECON courses

Two courses may be selected from other departments; see major adviser for a list of approved courses

ENVECON 131Globalization and the Natural Environment [3]

ENVECON 140Economics of Race, Agriculture, and the Environment [3]

ENVECON 141Agricultural and Environmental Policy [4]

ENVECON 142Industrial Organization with Applications to Agriculture and Natural Resources [4]

ENVECON 143Economics of Innovation and Intellectual Property [4]

ENVECON 145Health and Environmental Economic Policy [4]

ENVECON 147Regulation of Energy and the Environment [4]

ENVECON C15Development Economics [4]

ENVECON 152Advanced Topics in Development and International Trade [3]

ENVECON 153Population, Environment, and Development [3]

ENVECON 154Economics of Poverty and Technology [3]

ENVECON 161Advanced Topics in Environmental and Resource Economics [4]

ENVECON 162Economics of Water Resources [3]

ENVECON C17Climate Change Economics [4]

ENVECON C18International Trade [4]

ENVECON C19Forest Ecosystem Management [4]

Students who have a strong interest in an area of study outside their major often decide to complete a minor program. These programs have set requirements and are noted officially on the transcript in the memoranda section, but they are not noted on diplomas.

General Guidelines

1. All minors must be declared no later than one semester before a student's Expected Graduation Term (EGT). If the semester before EGT is fall or spring, the deadline is the last day of RRR week. If the semester before EGT is summer, the deadline is the final Friday of Summer Sessions. To declare a minor, contact the department advisor for information on requirements, and the declaration process.
2. All courses taken to fulfill the minor requirements below must be taken for graded credit.
3. A minimum grade point average (GPA) of 2.0 is required for courses used to fulfill the minor requirements.
4. No more than one upper division course may be used to simultaneously fulfill requirements for a student's major and minor programs.

At least one of the five upper division courses below must be taken during the academic year (i.e., not all courses may be Summer Session courses).

Lower Division Prerequisite

Select one of the following sequences:

MATH 16A & MATH 16B	Analytic Geometry and Calculus and Analytic Geometry and Calculus
MATH 1A & MATH 1B	Calculus and Calculus

Minor Requirements**Principles of microeconomics, select one of the following:**

ENVECON C1/ECON C3	Introduction to Environmental Economics and Policy [4]
ECON 1	Introduction to Economics [4]
ECON 2	Introduction to Economics--Lecture Format [4]

Intermediate microeconomics, select one of the following:

ENVECON 100	Microeconomic Theory with Application to Natural Resources [4]
ECON 100A	Microeconomics [4]
ECON 101A	Microeconomics (Math Intensive) [4]

Environmental and natural resource economics

ENVECON C101/ ECON C125	Environmental Economics	4
ENVECON/ ECON C102	Natural Resource Economics	4

Quantitative methods, select one of the following:

ENVECON/ IAS C118	Introductory Applied Econometrics [4]
ENVECON/ ESPM C183	Forest Ecosystem Management [4]
ECON C110/ POL SCI C135	Game Theory in the Social Sciences [4]
ECON 140	Econometrics [4]
ECON 141	Econometrics (Math Intensive) [4]
ECON C142/ POL SCI C131/ PUB POL C142	Applied Econometrics and Public Policy [4]
ESPM 102B	Natural Resource Sampling [2]
ESPM 102C	Resource Management [4]
PB HLTH 142	Introduction to Probability and Statistics in Biology and Public Health [4]
STAT 131A	Course Not Available [4]

Natural resource analysis and policy, select one of the following:

ENVECON 131	Globalization and the Natural Environment [3]
ENVECON 140/ ECON C125	Economics of Race, Agriculture, and the Environment [3]
ENVECON 142	Industrial Organization with Applications to Agriculture and Natural Resources [4]
ENVECON 143	Economics of Innovation and Intellectual Property [4]
ENVECON 145	Health and Environmental Economic Policy [4]
ENVECON 147	Regulation of Energy and the Environment [4]
ENVECON C15	Development Economics [4]
ENVECON 152	Advanced Topics in Development and International Trade [3]

ENVECON 153 Population, Environment, and Development [3]
 ENVECON 154 Economics of Poverty and Technology [3]
 ENVECON 161 Advanced Topics in Environmental and Resource Economics [4]
 ENVECON 162 Economics of Water Resources [3]
 ENVECON C17 The Economics of Climate Change [4]
 ENVECON C18 International Trade [4]

Undergraduate students must fulfill the following requirements in addition to those required by their major program.

For detailed lists of courses that fulfill college requirements, please review the College of Letters & Sciences (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/letters-science/>) page in this Guide. For College advising appointments, please visit the L&S Advising (<https://ls.berkeley.edu/advising/about-undergraduate-advising-services/>) Pages.

University of California Requirements

Entry Level Writing (<http://writing.berkeley.edu/node/78/>)

All students who will enter the University of California as freshmen must demonstrate their command of the English language by fulfilling the Entry Level Writing requirement. Fulfillment of this requirement is also a prerequisite to enrollment in all reading and composition courses at UC Berkeley.

American History and American Institutions (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/letters-science/american-history-institutions-requirement/>)

The American History and Institutions requirements are based on the principle that a US resident graduated from an American university, should have an understanding of the history and governmental institutions of the United States.

Berkeley Campus Requirement

American Cultures (<http://americancultures.berkeley.edu/students/courses/>)

All undergraduate students at Cal need to take and pass this course in order to graduate. The requirement offers an exciting intellectual environment centered on the study of race, ethnicity and culture of the United States. AC courses offer students opportunities to be part of research-led, highly accomplished teaching environments, grappling with the complexity of American Culture.

College of Letters & Science Essential Skills Requirements

Quantitative Reasoning (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/letters-science/quantitative-reasoning-requirement/>)

The Quantitative Reasoning requirement is designed to ensure that students graduate with basic understanding and competency in math, statistics, or computer science. The requirement may be satisfied by exam or by taking an approved course.

Foreign Language (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/letters-science/foreign-language-requirement/>)

The Foreign Language requirement may be satisfied by demonstrating proficiency in reading comprehension, writing, and conversation in a foreign language equivalent to the second semester college level, either by passing an exam or by completing approved course work.

Reading and Composition (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/letters-science/reading-composition-requirement/>)

In order to provide a solid foundation in reading, writing, and critical thinking the College requires two semesters of lower division work in composition in sequence. Students must complete parts A & B reading and composition courses by the end of their second semester and a second-level course by the end of their fourth semester.

College of Letters & Science 7 Course Breadth Requirements

Breadth Requirements (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/letters-science/#breadthrequirementtext>)

The undergraduate breadth requirements provide Berkeley students with a rich and varied educational experience outside of their major program. As the foundation of a liberal arts education, breadth courses give students a view into the intellectual life of the University while introducing them to a multitude of perspectives and approaches to research and scholarship. Engaging students in new disciplines and with peers from other majors, the breadth experience strengthens interdisciplinary connections and context that prepares Berkeley graduates to understand and solve the complex issues of their day.

Unit Requirements

- 120 total units
- Of the 120 units, 36 must be upper division units
- Of the 36 upper division units, 6 must be taken in courses offered outside your major department

Residence Requirements

For units to be considered in "residence," you must be registered in courses on the Berkeley campus as a student in the College of Letters & Science. Most students automatically fulfill the residence requirement by attending classes here for four years. In general, there is no need to be concerned about this requirement, unless you go abroad for a semester or year or want to take courses at another institution or through UC Extension during your senior year. In these cases, you should make an appointment to meet an adviser to determine how you can meet the Senior Residence Requirement.

Note: Courses taken through UC Extension do not count toward residence.

Senior Residence Requirement

After you become a senior (with 90 semester units earned toward your BA degree), you must complete at least 24 of the remaining 30 units in residence in at least two semesters. To count as residence, a semester must consist of at least 6 passed units. Intercampus Visitor, EAP, and UC Berkeley-Washington Program (UCDC) units are excluded.

You may use a Berkeley Summer Session to satisfy one semester of the Senior Residence requirement, provided that you successfully complete 6 units of course work in the Summer Session and that you have been enrolled previously in the college.

Modified Senior Residence Requirement

Participants in the UC Education Abroad Program (EAP), Berkeley Summer Abroad, or the UC Berkeley Washington Program (UCDC) may meet a Modified Senior Residence requirement by completing 24 (excluding EAP) of their final 60 semester units in residence. At least 12 of these 24 units must be completed after you have completed 90 units.

Upper Division Residence Requirement

You must complete in residence a minimum of 18 units of upper division courses (excluding UCEAP units), 12 of which must satisfy the requirements for your major.

Summary of Modifications

1. L&S College Requirements: Reading & Composition, Quantitative Reasoning, and Foreign Language, which typically must be satisfied with a letter grade, can be satisfied with a Passed (P) grade during Fall 2020 and Spring 2021 if a student elects to take the course for P/NP. Note: This does not include Entry Level Writing (College Writing R1A).
2. Requirements within L&S majors and minors can be satisfied with Passed (P) grades during the Fall 2020 and Spring 2021 semesters. This includes prerequisites for majors. Contact your intended or declared major/minor adviser (<http://guide.berkeley.edu/archive/2020-21/undergraduate/degree-programs/>) for more details.
3. Departments may create alternative methods for admitting students into their majors.
4. L&S students will not be placed on academic probation automatically for taking all of their courses P/NP during Fall 2020 or Spring 2021.

Reading and Composition (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/natural-resources/reading-composition-requirement/>)

In order to provide a solid foundation in reading, writing and critical thinking all majors in the College require two semesters of lower division work in composition. Students must complete a first-level reading and composition course by the end of their second semester and a second-level course by the end of their fourth semester.

Foreign Language (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/natural-resources/foreign-language-requirement/>): **EEP Majors only**

The Foreign Language requirement is only required by Environmental Economics and Policy (EEP) majors. It may be satisfied by demonstrating proficiency in reading comprehension, writing, and conversation in a foreign language equivalent to the second semester college level, either by passing an exam or by completing approved course work.

Quantitative Reasoning (<http://guide.berkeley.edu/archive/2020-21/undergraduate/colleges-schools/natural-resources/quantitative-reasoning-requirement/>): **EEP Majors only**

The Quantitative Reasoning requirement is only required by Environmental Economics and Policy (EEP) majors. The requirement may be satisfied by exam or by taking an approved course.

Undergraduate Breadth

Undergraduate breadth provide Berkeley students with a rich and varied educational experience outside of their major program and many students complete their breadth courses in their first two years. Breadth courses are built into the Rausser College major requirements and each major requires a different number of breadth courses and categories. The EEP major is the only college major that requires the entire 7 course breadth. Refer to the major snapshots on each Rausser College major page (<https://nature.berkeley.edu/advising/majors-minors/>) for additional information.

High School Exam Credit

Rausser College students may apply high school exam credit (Advanced Placement, International Baccalaureate, A-Level Exam) towards many College and Major Requirements. See AP Exam Equivalency Chart and Higher Level IB Exam Equivalency Chart (<https://nature.berkeley.edu/advising/courses-grades/#AP%20Exam%20Equivalency%20Chat>) in the Rausser College Student Handbook (<https://nature.berkeley.edu/handbook/>) for more information.

Unit Requirements

Students must complete at least 120 semester units of courses subject to certain guidelines:

- At least 36 units must be upper division courses, including a minimum of 15 units of upper division courses in the Rausser College.
- A maximum of 16 units of Special Studies coursework (courses numbered 97, 98, 99, 197, 198, or 199) is allowed towards the 120 units; a maximum of four is allowed in a given semester.
- A maximum of 4 units of Physical Education from any school attended will count towards the 120 units.
- Students may receive unit credit for courses graded P (including P/NP units taken through EAP) up to a limit of one-third of the total units taken and passed on the Berkeley campus at the time of graduation.

Semester Unit Minimum

All Rausser College students must enroll in at least 12 units each fall and spring semester.

Semester Unit Maximum

To request permission to take more than 20.5 units in a semester, please see the major adviser.

Semester Limit

Students admitted as freshmen must graduate within 8 fall/spring semesters at UC Berkeley. Students admitted as transfer students must graduate within 4 fall/spring semesters at UC Berkeley. Students who go on EAP and UCDC can petition for additional semesters. Summer session, UC Extension and non-UC study abroad programs do not count towards this semester limit. Students approved for double majors or simultaneous degrees in two colleges may be granted an additional semester. Rausser College does not limit the number of total units a student can accrue.

Senior Residence Requirement

Once you achieve and exceed 90 units (senior status), you must complete at least 24 of the remaining 30 units in residence at the Rausser College of Natural Resources over at least 2 semesters. To count as residence, a semester must consist of at least 6 passed units taken while the student is a member of Rausser. At least one of the two terms must be a fall or spring semester. Senior residence terms do not need to be completed consecutively. All courses offered on campus for the fall, spring, and summer terms by Berkeley departments and programs and all Berkeley online ("W") courses count. Inter-campus Visitor, Education Abroad Program, UC Berkeley Washington Program, and UC Berkeley Extension units do not count toward this requirement.

Students may use Summer Session to satisfy one semester of the Senior Residence Requirement, provided that 6 units of coursework are completed.

Modified Senior Residence Requirement

Participants in a fall, spring or summer UC Education Abroad Program (UCEAP), Berkeley Summer Abroad, or the UC Berkeley Washington Program may meet a modified Senior Residence Requirement by completing 24 of their final 60 semester units in residence (excluding UCEAP). At least 12 of these 24 units must be completed after senior status is reached. International travel study programs sponsored by Summer Sessions and education abroad programs offered outside of the UC system do not qualify for modified senior residence.

Most students automatically satisfy the residence requirement by attending classes here for four years. In general, there is no need to be concerned about this requirement, unless students go abroad for a semester or year or want to take courses at another institution or through University Extension during their senior year. In these cases, students should make an appointment to see an adviser to determine how they can meet the Senior Residence Requirement.

Grade Requirements

- A 2.0 UC GPA is required for graduation.
- A 2.0 average in all upper division courses required of the major program is required for graduation.
- A grade of at least C- is required in all courses for the major

Fall 2020 & Spring 2021 – Changes in Policies and Procedures

After much consultation across the colleges of UC Berkeley, and via our college Executive Committee, the following decisions have been made about the selection of the P/NP grade option (CPN) by undergraduate students during the Fall 2020 & Spring 2021 semesters for the Rausser College of Natural Resources.

- College Course Requirements: Reading and Composition, Quantitative Reasoning, and Foreign Language requirements normally satisfied with letter grades may be met with a passed (P) grade during the Fall 2020 semester. This does not include the system-wide Entry Level Writing requirement. College Writing R1A must be taken for a letter grade and completed with a C or better to fulfill the Entry Level Writing requirement.
- Requirements to Graduate: No changes in policy.
 - Rausser College students must have at least a 2.0 cumulative UC GPA to declare a Rausser College major.

- Non-Rausser College students must have at least a 3.0 cumulative UC GPA to change to or add a Rausser College major.
- Students must have at least a 2.0 cumulative UC GPA to graduate, both overall and in the upper-division courses required for the major.
- Academic Probation: The terms for Academic Probation (AP) have been modified.
 - Rausser CNR students currently in good standing who earn all "P" grades will remain in good standing.
 - Students currently in good standing who earn NP grades, Incompletes, or failing letter grades for more than 50% of units will be placed on academic probation and will be required to meet with their college advisor and complete an Academic Success Plan for the subsequent semester.
 - Students on AP must take all coursework for letter grades. Students on AP may be removed from probationary status with sufficient letter graded course work to raise their cumulative GPA above 2.0.
 - Students on Academic Probation who do not attain sufficient letter-graded coursework to be removed from AP (ie. enough grade points to raise cumulative GPA above 2.0 cumulative GPA) will remain on AP for the subsequent semester and must complete an Academic Success Plan with their college advisor.
 - Students on Academic Probation who earn NP grades, Incompletes, or failing letter grades for more than 50% of units will be Subject to Dismissal and will be required to meet with their college advisor and complete an Academic Success Plan for the subsequent semester.
- Term Probation: Students in this category are placed on academic probation if their GPA falls below 1.5 in any fall or spring semester ("Term"). To get back into good standing, you must earn a UC Berkeley term GPA of 2.0 the following regular semester (fall/spring) and maintain an overall GPA of 2.0. If you fail to meet these conditions, you will be subject to dismissal from the University. For Fall 2020 & Spring 2021, the terms for Term Probation have been modified.
 - Rausser CNR students currently in good standing who earn all "P" grades will remain in good standing and will not be placed on Term Probation.
- Transferring Credit: If you are taking coursework through another institution in Fall 2020 & Spring 2021, P grades earned will be accepted for all degree requirements. Note: This does not include the systemwide Entry Level Writing requirement. College Writing R1A must be taken for a letter grade and completed with a C or better to fulfill the Entry Level Writing requirement.

For additional information, please see Changes to Policies and Procedures for Fall 2020 & Spring 2021 (<https://nature.berkeley.edu/advising/AY-2020-2021-policy-adjustments/>).

Students are encouraged to familiarize themselves with the Environmental Economics and Policy major requirements before making a program plan. For more detailed information regarding the courses

listed below (e.g., elective information, GPA requirements, etc.), see the College Requirements and Major Requirements tabs.

			Freshman
	Fall Units	Spring Units	
MATH 16A	3 MATH 16B	3	
OR	OR		
MATH 1A [4]	MATH 1B [4]		
Reading and Composition A	4 Reading and Composition B	4	
L&S Breadth	4 Lower Division Elective	4	
L&S Breadth	4 ENVECON C1	4	
	OR		
	ECON 1 [4]		
	15	15	
			Sophomore
	Fall Units	Spring Units	Summer Units
STAT 20	4 ENVECON 100 (Core 1 of 2)	4 Internship	
OR	L&S Breadth	4 OR	
STAT 21 [4]	L&S Breadth	3 Study Abroad	
L&S Breadth	4 American Cultures Requirement	4	
L&S Breadth	4		
Lower Division Elective	3		
	15	15	0
			Junior
	Fall Units	Spring Units	Summer Units
Environmental Economics and Policy Quantitative Methods	4 ENVECON C101 (Core 2 of 2)	4 Internship	
Upper Division Environmental Economics and Policy Elective (1 of 5)	4 Upper Division Environmental Economics and Policy Elective (2 of 5)	4 OR	
Lower or Upper Division Elective	4 Lower or Upper Division Elective	4 Study Abroad	
Lower or Upper Division Elective	3 Lower or Upper Division Elective	3	
	15	15	0
			Senior
	Fall Units	Spring Units	
Upper Division Environmental Economics and Policy Elective (3 of 5)	4 Upper Division Environmental Economics and Policy Elective (5 of 5)	4	
Upper Division Environmental Economics and Policy Elective (4 of 5)	4 Lower or Upper Division Elective	4	
Lower or Upper Division Elective	4 Lower or Upper Division Elective	4	
Lower or Upper Division Elective	3 Lower or Upper Division Elective	3	
	15	15	
Total Units: 120			

¹ This is a sample program plan. This plan assumes that the student has completed the Entry Level Writing and American History and Institutions requirements prior to admission.

² Students are strongly advised to work with an academic advisor to determine a personal program plan. Your program plan will differ depending on previous credit received, your course schedule, and available offerings.

³ Any EEP course will satisfy the L&S Breadth area of Social and Behavior Sciences, one of seven breadth areas.

Accelerated Program Plans

For students considering graduating in less than four years, it's important to acknowledge the reasons to undertake such a plan of study. While there are advantages to pursuing a three-year degree plan such as reducing financial burdens, they are not for everyone and do involve sacrifices; especially with respect to participating in co-curricular activities, depth of study, and summer internships, which typically lead to jobs upon graduation. All things considered, please see the tables for three and three and a half year degree options.

3.5 Year Plan (https://nature.berkeley.edu/sites/default/files/EEP%203.5%20yr%20plan_0.pdf)

3 Year Plan (<https://nature.berkeley.edu/sites/default/files/EEP%203%20yr%20plan.pdf>)

Learning Goals for the Major

- 1. Produce graduates with an excellent education in applied economics, with a particular expertise in one of three fields: environmental economics and policy; development economics, or agricultural economics.
- 2. Prepare students for successful careers and further studies in graduate programs in a variety of applied fields within economics.
- 3. Produce graduates who have the capacity for continued learning throughout their careers and who will have a significant, positive impact on their professions.
- 4. Encourage the development of the ethics, skills, and motivation necessary to serve society.

Major Maps help undergraduate students discover academic, co-curricular, and discovery opportunities at UC Berkeley based on intended major or field of interest. Developed by the Division of Undergraduate Education in collaboration with academic departments, these experience maps will help you:

- **Explore** your major and gain a better understanding of your field of study
- **Connect** with people and programs that inspire and sustain your creativity, drive, curiosity and success
- **Discover** opportunities for independent inquiry, enterprise, and creative expression
- **Engage** locally and globally to broaden your perspectives and change the world
- **Reflect** on your academic career and prepare for life after Berkeley

Use the major map below as a guide to planning your undergraduate journey and designing your own unique Berkeley experience.

View the Environmental Economics and Policy Major Map PDF. (https://vcue.berkeley.edu/sites/default/files/environmental_economics_and_policy.pdf)

Environmental Economics and Policy

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

ENVECON C1 Introduction to Environmental Economics and Policy 4 Units

Terms offered: Fall 2021, Summer 2021 8 Week Session, Fall 2020
Introduction to microeconomics with emphasis on resource, agricultural, and environmental issues.

Introduction to Environmental Economics and Policy: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Mathematics 32

Credit Restrictions: Students will receive no credit for ECON C3 after completing ECON 1.

Hours & Format

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

Summer: 8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/
Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Also listed as: ECON C3

Introduction to Environmental Economics and Policy: Read Less [\[-\]](#)

ENVECON 39D Freshman/Sophomore Seminar 1.5 - 4 Units

Terms offered: Fall 2009, Fall 2008

Freshman and sophomore seminars offer lower division students the opportunity to explore an intellectual topic with a faculty member and a group of peers in a small-seminar setting. These seminars are offered in all campus departments; topics vary from department to department and from semester to semester.

Freshman/Sophomore Seminar: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Priority given to freshmen and sophomores

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

Hours & Format

Fall and/or spring: 15 weeks - 1.5-4 hours of seminar per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/
Undergraduate

Grading/Final exam status: The grading option will be decided by the instructor when the class is offered. Final exam required.

Freshman/Sophomore Seminar: Read Less [\[-\]](#)

ENVECON 98 Directed Group Studies (for Lower Division Students) 1 - 3 Units

Terms offered: Spring 2001

Group study (or seminar) of a selected topic or topics in Environmental Economics and Policy.

Directed Group Studies (for Lower Division Students): Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Consent of Instructor

Credit Restrictions: Enrollment is restricted; see the Introduction to Courses and Curricula section of this catalog.

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

Hours & Format

Fall and/or spring: 15 weeks - 1-3 hours of directed group study per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/
Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

Directed Group Studies (for Lower Division Students): Read Less [\[-\]](#)

ENVECON 100 Microeconomic Theory with Application to Natural Resources 4 Units

Terms offered: Fall 2021, Spring 2021, Fall 2020

Covers the basic microeconomic tools for further study of natural resource problems. Theory of consumption, production, theory of the firm, industrial organization, general equilibrium, public goods and externalities. Applications to agriculture and natural resources.

Microeconomic Theory with Application to Natural Resources: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: C1 or Economics 1 or C3; and Mathematics 16A and 16B or Math 1A and 1B; or consent of instructor

Credit Restrictions: Students will receive no credit for Environmental Economics 100 after completing Economics 100A, Economics 101A, or Undergraduate Business Administration 110.

Hours & Format

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

Summer: 8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructors: Ligon, Rausser

Microeconomic Theory with Application to Natural Resources: Read Less [\[-\]](#)

ENVECON C101 Environmental Economics 4 Units

Terms offered: Spring 2021, Spring 2020, Summer 2019 8 Week Session, Spring 2019

Theories of externalities and public goods applied to pollution and environmental policy. Trade-off between production and environmental amenities. Assessing nonmarket value of environmental amenities. Remediation and clean-up policies. Environment and development. Biodiversity management.

Environmental Economics: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: 100, Mathematics 16A-16B, or Economics 100A or 101A

Hours & Format

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

Summer: 8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Zilberman

Also listed as: ECON C125

Environmental Economics: Read Less [\[-\]](#)

ENVECON C102 Natural Resource Economics 4 Units

Terms offered: Fall 2021, Fall 2020, Fall 2019

Introduction to the economics of natural resources. Land and the concept of economic rent. Models of optimal depletion of nonrenewable resources and optimal use of renewable resources. Application to energy, forests, fisheries, water, and climate change. Resources, growth, and sustainability.

Natural Resource Economics: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: 100, or Economics 100A or 100B

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Sunding

Natural Resource Economics: Read Less [\[-\]](#)

ENVECON 103 Intermediate Microeconomic Theory with Application to Natural Resources 4 Units

Terms offered: Prior to 2007

Covers intermediate microeconomic theory for further study of economic behavior as it relates to agriculture and natural resource problems.

Theory of consumption, production, theory of the firm, industrial organization, general equilibrium, public goods and externalities.

Applications to agriculture and natural resources.

Intermediate Microeconomic Theory with Application to Natural Resources: [Read More](#) [+]

Rules & Requirements

Prerequisites: C1 or Economics 1 or C3 and Mathematics 16A or consent of instructor

Credit Restrictions: Students will receive no credit for Environmental Economics 103 after completing Environmental Economics 100, Economics 100A, Economics 101A, or Undergraduate Business Administration 110.

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Ligon

Intermediate Microeconomic Theory with Application to Natural Resources: [Read Less](#) [-]

ENVECON C115 Modeling and Management of Biological Resources 4 Units

Terms offered: Fall 2018, Fall 2017, Fall 2015, Fall 2014

Models of population growth, chaos, life tables, and Leslie matrix theory.

Harvesting and exploitation theory. Methods for analyzing population

interactions, predation, competition. Fisheries, forest stands, and

insect pest management. Genetic aspects of population management.

Mathematical theory based on simple difference and ordinary differential equations. Use of simulation packages on microcomputers (previous experience with computers not required).

Modeling and Management of Biological Resources: [Read More](#) [+]

Rules & Requirements

Prerequisites: A course that includes differential and integral calculus

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

Summer: 6 weeks - 6.5 hours of lecture and 4 hours of laboratory per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Getz

Also listed as: ESPM C104

Modeling and Management of Biological Resources: [Read Less](#) [-]

ENVECON C118 Introductory Applied Econometrics 4 Units

Terms offered: Fall 2021, Summer 2021 8 Week Session, Spring 2021

Formulation of a research hypothesis and definition of an empirical strategy. Regression analysis with cross-sectional and time-series data; econometric methods for the analysis of qualitative information; hypothesis testing. The techniques of statistical and econometric analysis are developed through applications to a set of case studies and real data in the fields of environmental, resource, and international development economics. Students learn the use of a statistical software for economic data analysis.

Introductory Applied Econometrics: Read More [+]

Rules & Requirements

Prerequisites: Statistics 2, 20, 21, or equivalent

Hours & Format

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

Summer: 8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Sadoulet

Also listed as: IAS C118

Introductory Applied Econometrics: Read Less [-]

ENVECON 131 Globalization and the Natural Environment 3 Units

Terms offered: Fall 2013, Fall 2012, Fall 2011

An examination of the environmental effects of globalization. How has increased international trade, the integration of factor markets, and the adoption of international agreements affected the environment? Case studies include the environmental impact of GATT/WTO and NAFTA. Multi-disciplinary approach examines the actual laws and institutions and the economic theories of globalization, in addition to the empirical evidence of globalization's environmental effects.

Globalization and the Natural Environment: Read More [+]

Rules & Requirements

Prerequisites: Intermediate micro-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: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Karp

Globalization and the Natural Environment: Read Less [-]

ENVECON C132 International Environmental Economics 4 Units

Terms offered: Fall 2021, Fall 2020

This course studies the following question: How should policymakers and scholars design and analyze environmental policy in a globalized world where much economic activity and pollution crosses political borders?

The course addresses issues including climate change, air and water pollution, deforestation, species extinction, and others. The course also analyzes a variety of ways that countries and regions interact, including trade, foreign direct investment, outsourcing, international agreements and treaties, and others. The course also teaches a range of tools used to analyze these issues, including life-cycle (also called environmental footprint) analysis, simple econometrics, environmental market design, non-market valuation, and the data.

International Environmental Economics: Read More [+]

Objectives & Outcomes

Course Objectives: 1. Develop a strong grasp of the main debates and ideas involving international environmental economics

2. Learn to interpret, apply, and critically assess methods used to study international environmental economic issues
3. Build skills in reading basic economic writing involving these issues, including an understanding of their evidence and conclusions, and ability to critically evaluate the basis for these conclusion

Student Learning Outcomes: 1.

A strong grasp of the main scholarly debates and ideas involving international environmental economics

2.

The ability to interpret and critically assess methods used to study international environmental economic issues, including: life-cycle analysis and input-output tables; simple econometric estimates; the design of environmental policy; non-market valuation; and the use of remote sensing (satellite) data

The ability to read basic empirical environmental economics papers, understand their evidence and conclusions, and critically evaluate the basis for these conclusions

Rules & Requirements

Prerequisites: ENVECON 100, ECON 101a, ECON 100a or or equivalent

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Shapiro

Also listed as: ECON C184

International Environmental Economics: Read Less [-]

ENVECON 140AC Economics of Race, Agriculture, and the Environment 3 Units

Terms offered: Fall 2012, Fall 2011, Fall 2010

This course examines whether and how economic processes explain shifting formations of race and differential experiences among racial groups in U.S. agricultural and environmental systems. It approaches economic processes as organizing dynamics of racial differentiation and integration, and uses comparative experience among different racial and ethnic groups as sources of evidence against which economic theories of differentiation and integration can be tested.

Economics of Race, Agriculture, and the Environment: Read More [+]

Rules & Requirements

Prerequisites: 1, or one lower division course in a social science, or consent of instructor

Requirements this course satisfies: Satisfies the American Cultures requirement

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Romm

Economics of Race, Agriculture, and the Environment: Read Less [-]

ENVECON 141 Agricultural and Environmental Policy 4 Units

Terms offered: Spring 2021, Fall 2019, Summer 2019 8 Week Session

This course considers the formation, implementation, and impact of public policies affecting agriculture and the environment. Economic approaches to public lawmaking, including theories of legislation, interest group activity, and congressional control of bureaucracies. Case studies include water allocation, endangered species protection, water quality, food safety, drainage, wetlands, pesticides, and farmworker safety. Emphasis on examples from California.

Agricultural and Environmental Policy: Read More [+]

Rules & Requirements

Prerequisites: 100 or Economics 100A or 101A

Hours & Format

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

Summer: 8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Agricultural and Environmental Policy: Read Less [-]

ENVECON 142 Industrial Organization with Applications to Agriculture and Natural Resources 4 Units

Terms offered: Spring 2015, Spring 2014, Spring 2013

Organization and performance of agricultural and resource markets.

Conduct of firms within those markets, such as price competition, product differentiation, predatory pricing, vertical integration, dealer networks and advertising. The role of public policy in the markets. Case studies include oil cartel OPEC, agricultural cooperatives, vertical integration of food processors and franchising of fast-food chains. Discussion sections cover empirical applications of theory presented during lectures for current environmental and agricultural policies.

Industrial Organization with Applications to Agriculture and Natural Resources: Read More [+]

Rules & Requirements

Prerequisites: Environmental Economics and Policy 100 or Economics 100A or 101A

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Villas-Boas

Industrial Organization with Applications to Agriculture and Natural Resources: Read Less [-]

ENVECON 143 Economics of Innovation and Intellectual Property 4 Units

Terms offered: Fall 2021, Fall 2020, Fall 2019

This course addresses the economics of research and incentives for innovation including intellectual property rights. Topics include the standard modern economics of invention; modern intellectual property rights; innovation examples from agriculture, energy, pharmaceuticals, software, and electronics; the roles of the public and private sectors; innovation and market structure; the needs of the poor; and global intellectual property negotiations.

Economics of Innovation and Intellectual Property: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: ENVECON 100 or ECON 100A or ECON 101A with minimum grade of C+

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Wright

Economics of Innovation and Intellectual Property: Read Less [\[-\]](#)

ENVECON 145 Health and Environmental Economic Policy 4 Units

Terms offered: Fall 2021, Fall 2019, Fall 2016

This course introduces students to key issues and findings in the field of health and environmental economics. The first half of the course focuses on the theoretical and statistical frameworks used to analyze instances of market failure in the provision of health and environmental goods. The second half focuses on policy-relevant empirical findings in the field. Health and Environmental Economic Policy: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Intermediate microeconomics, 100, Economics 100 or 101A, and some statistics

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Anderson

Health and Environmental Economic Policy: Read Less [\[-\]](#)

ENVECON 147 Regulation of Energy and the Environment 4 Units

Terms offered: Spring 2021, Spring 2020, Spring 2019

This is an applied economics course on government regulation of energy with an emphasis on policies that seek to mitigate the impact of energy production and consumption on the environment. The course is designed to help students make connections between economic concepts and real world regulatory policy questions and issues.

Regulation of Energy and the Environment: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Intermediate microeconomic theory and calculus

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Fowlie

Regulation of Energy and the Environment: Read Less [\[-\]](#)

ENVECON C151 Development Economics 4 Units

Terms offered: Fall 2021, Summer 2021 8 Week Session, Spring 2021, Fall 2020

This course covers theory and empirical evidence on the determinants of economic development and the global fight against poverty. The course aims to introduce students to modern empirical research methods that are being used to inform policy making in developing countries. Students also learn how to implement these tools themselves using real-world data sets and widely used statistical software for impact evaluation.

Development Economics: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: EnvEcon 100 or Econ 100A or 101A; Econ 140 or 141 or EnvEcon/IAS C118

Hours & Format

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

Summer:

6 weeks - 8 hours of lecture and 2 hours of discussion per week

8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Also listed as: ECON C171

Development Economics: Read Less [\[-\]](#)

ENVECON N151 Economic Development 4 Units

Terms offered: Prior to 2007

Problems of underdevelopment and poverty, policy issues, and development strategy.

Economic Development: Read More [+]

Rules & Requirements

Prerequisites: Envecon 100, Economics 100A or Economics 100B

Credit Restrictions: Students will receive no credit for ENVECON N151 after completing ECON N171, ENVECON C151, or ECON C171. A deficient grade in ENVECON N151 may be removed by taking ECON N171, ENVECON C151, or ECON C171.

Hours & Format

Summer:

6 weeks - 8 hours of lecture and 2 hours of discussion per week

8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Economic Development: Read Less [-]

ENVECON 152 Advanced Topics in Development and International Trade 3 Units

Terms offered: Spring 2020, Spring 2018, Fall 2016

This course discusses recent efforts to understand behavior and institutions in village economies, with particular attention paid to the importance of risk. Economic analysis of savings, consumption, insurance, production, trade, welfare distribution and institutions of villages in developing countries. Roughly equal parts of theory, evidence, and policy.

Advanced Topics in Development and International Trade: Read More [+]

Rules & Requirements

Prerequisites: 100 or Economics 100A

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Magruder

Advanced Topics in Development and International Trade: Read Less [-]

ENVECON 153 Population, Environment, and Development 3 Units

Terms offered: Spring 2021, Spring 2020, Spring 2019

This course takes a quantitative, hands-on approach to understanding the challenges of feeding the human population of the planet Earth. We'll discuss topics of nutrition, subsistence food consumption, and consumer demand for food to develop our understanding of the current situation. We'll then develop both theories and computer models of population dynamics taking into account people's decisions about childbearing, changes in mortality, and changes in food supply in order to learn something about the future of food. Focus throughout the course will be on developing practical tools to work with real-world data.

Population, Environment, and Development: Read More [+]

Rules & Requirements

Prerequisites: ENVECON 100 or ECON 100A or ECON 101A, and STAT C8 or INFO C8 or COMPSCI C8, and MATH 54 RECOMMENDED

Hours & Format

Fall and/or spring: 15 weeks - 2 hours of lecture and 2 hours of laboratory per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Population, Environment, and Development: Read Less [-]

ENVECON 154 Economics of Poverty and Technology 3 Units

Terms offered: Spring 2014, Spring 2013, Spring 2012

Introduction to the economic framework underlying the use of technology to address rural poverty in developing countries. Analyzes the path of technology development from innovation and design to the adoption and use of technology in rural economies. Focuses on technologies related to agricultural production, processing, market access, value chains, and climate change.

Economics of Poverty and Technology: Read More [+]

Rules & Requirements

Prerequisites: Intermediate microeconomics

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Boettiger

Economics of Poverty and Technology: Read Less [-]

ENVECON 161 Advanced Topics in Environmental and Resource Economics 4 Units

Terms offered: Fall 2013, Fall 2012, Fall 2011

The roots of environmental and resource economics. Theories of land and resource rent. Models of optimal use of renewable and nonrenewable resources with applications to energy and timber. Balancing environmental and extractive values. Resources, growth, and sustainability. Special topic: the problem of global climate change. Advanced Topics in Environmental and Resource Economics: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: 100 or Economics 100A or Economics 101A; 101 recommended

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Advanced Topics in Environmental and Resource Economics: Read Less [\[-\]](#)

ENVECON 162 Economics of Water Resources 3 Units

Terms offered: Spring 2021, Spring 2020, Spring 2019

Urban demand for water; water supply and economic growth; water utility economics; irrigation demand; large water projects; economic impacts of surface water law and institutions; economics of salinity and drainage; economics of groundwater management.

Economics of Water Resources: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: 100 or Economics 100A or 101A; 101 recommended

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Economics of Water Resources: Read Less [\[-\]](#)

ENVECON 170 Energy and Climate Policy in China 1 Unit

Terms offered: Spring 2021

The course will present scholarly review of historical and on-going energy and climate policy topics in China, with a broad goal of gaining understanding the relationship between energy, economic development, and climate change in the largest emerging economy, China.

Energy and Climate Policy in China: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: One goal of the course is to give students the tools to read, write about, speak about, and in general critically evaluate empirical research on energy and climate policy in China and in developing economics in general. The lectures and interactions with guest speakers would give student the perspective on the effectiveness of various energy and climate policies in the developing world context, an understanding of the key factors in successful climate policies, so they could apply these lessons learned to develop appropriate energy and climate policies in other developing economies.

Hours & Format

Fall and/or spring: 15 weeks - 1 hour of seminar per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Alternative to final exam.

Instructor: Lin

Energy and Climate Policy in China: Read Less [\[-\]](#)

ENVECON C175 The Economics of Climate Change 4 Units

Terms offered: Spring 2016, Fall 2015, Fall 2014, Fall 2013

The course will start with a brief introduction and evaluation of the scientific aspects behind climate change. Economic models will be developed to analyze the impacts of climate change and provide and critique existing and proposed policy tools. Specific topics studied are impacts on water resources and agriculture, economic evaluation of impacts, optimal control of greenhouse gases, benefit cost analysis, international treaty formation, discounting, uncertainty, irreversibility, and extreme events.

The Economics of Climate Change: Read More [+]

Rules & Requirements

Prerequisites: 106, 107, Economics 1, or equivalent

Hours & Format

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

Summer: 6 weeks - 7.5 hours of lecture and 2.5 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructors: Aufhammer, Fisher

Also listed as: IAS C175

The Economics of Climate Change: Read Less [-]

ENVECON C176 Climate Change Economics 4 Units

Terms offered: Fall 2021, Summer 2021 8 Week Session, Fall 2020

This course is a self-contained introduction to the economics of climate change. Climate change is caused by a large variety of economic activities, and many of its impacts will have economic consequences. Economists have studied climate change for more than two decades, and economic arguments are often powerful in policy decisions. The course will familiarize students with these arguments and equip them with the tools to participate in discussions of climate change policy through an economic lens.

Climate Change Economics: Read More [+]

Objectives & Outcomes

Course Objectives: The course will start with a brief review of the science of climate change, discuss scenarios of economic growth and the greenhouse gas emissions caused by economic activities and investigate various emission reduction opportunities and their economic costs. A significant amount of time will be spent on studying the impacts of climate change, their economic evaluation and how adaptation can lower the costs of climate damages.

We will then study various theoretical frameworks economists have developed that answer the question how estimates about the costs and benefits of climate policy can be combined to find “good” climate policies. We then study three more specialized topics that turn out to be of great importance when analyzing climate change policy: first, how do we compare costs and benefits of generations that live many centuries apart? Second, how do we design climate policy when our projections of both the costs and the benefits of climate policy are highly uncertain? And third, how can equity considerations be accounted for in an economic assessment of climate change policy? The course will close with a look at international cooperation on climate policy and why it has been so difficult to agree on effective treaties that implement climate change policy.

Student Learning Outcomes: Students will also have gained insight into the practical aspects of modeling the economics of climate change by building a simple integrated assessment model in Excel. They will be able to use that model to do simple analysis of climate change policy themselves.

Students will be familiar with the tools economists use to analyze climate change policy. They will have studied empirical estimates of the costs and benefits of climate policy and have an understanding of the analytical issues that drive research on the economics of climate change.

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

Summer: 8 weeks - 6 hours of lecture and 4 hours of laboratory per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Anthoff

Also listed as: ENE,RES C176/IAS C176

Climate Change Economics: Read Less [-]

ENVECON C181 International Trade 4 Units

Terms offered: Fall 2021, Spring 2021, Fall 2020

The theory of international trade and its applications to tariff protection.

This course is equivalent to UGBA 118; students will not receive credit for both courses.

International Trade: Read More [+]

Rules & Requirements

Prerequisites: Economics100A-100B or Economics 101A-101B

Credit Restrictions: Students will receive no credit for ECON C181/ ENVECON C181 after passing ECON 181, ECON N181 or UGBA 118. A deficient grade in ECON 181, or ECON N181 may be removed by taking ECON C181/ENVECON C181.

Hours & Format

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

Summer: 8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

International Trade: Read Less [-]

ENVECON C183 Forest Ecosystem Management 4 Units

Terms offered: Spring 2016, Spring 2015, Spring 2014

Introduces students to concepts and quantitative tools needed for the sustainable management of multi-use forest ecosystems. Topics covered include: estimation of ecological, economic, and social values: construction of dynamic forest models, methods for optimal decision-making, and development of forest management plans. Application to current issues in temperate and tropical forest management are discussed. Quantitative, analytical, and communication skills are emphasized. Oral presentation required.

Forest Ecosystem Management: Read More [+]

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Potts

Also listed as: ESPM C183

Forest Ecosystem Management: Read Less [-]

ENVECON 185 The Production and Business of Beer, Wine, and Spirits 2 Units

Terms offered: Fall 2021, Fall 2020

Raw materials, process flow, production methodology and quality control will be introduced in the first half of the class for the first half of the semester. Students will also be introduced to basic chemistry and microbiology of fermentation and distilling. The second half of the semester will be an introduction to finance, cost accounting, sales and marketing for the alcoholic beverage industry. The goal will be to enable the students to write a business plan by the end of the semester.

The Production and Business of Beer, Wine, and Spirits: Read More [+]

Objectives & Outcomes

Course Objectives: 1. Cite detail of raw materials and production processes for beer, wine and spirits.

2. Describe and differentiate the majority of beer styles, wine varietals and various distilled spirits.

3. Write a realistic business plan for a beverage production company.

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Alternative to final exam.

Instructor: Perloff

The Production and Business of Beer, Wine, and Spirits: Read Less [-]

ENVECON 195 Senior Thesis 4 Units

Terms offered: Summer 2019, Fall 2017, Fall 2016

Writing of a thesis under the direction of member(s) of the faculty. Subject must be approved by faculty sponsor.

Senior Thesis: Read More [+]

Rules & Requirements

Prerequisites: Senior standing in Environmental Economics and Policy and consent of instructor

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

Hours & Format

Fall and/or spring: 15 weeks - 0 hours of independent study per week

Summer:

6 weeks - 0 hours of independent study per week

8 weeks - 0 hours of independent study per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam not required.

Senior Thesis: Read Less [-]

ENVECON 196 Senior Research Seminar 4 Units

Terms offered: Spring 2011

This course is intended as a capstone experience for undergraduates in the major coordinated by one faculty member with participation by others. Following presentations by faculty on researchable topics in their areas of expertise, students will develop ideas for a research paper and discuss in subsequent seminar sessions. Approximately the last five weeks of the semester will be devoted to student presentations of papers either already completed or in progress, and discussion by seminar participants and faculty.

Senior Research Seminar: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Student must be a senior with at least a 3.6 GPA in the Environmental Economics and Policy major

Hours & Format

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

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam not required.

Instructor: Fisher

Senior Research Seminar: Read Less [\[-\]](#)

ENVECON H196 Honors Research 4 Units

Terms offered: Fall 2016, Spring 2016, Fall 2015

Supervised independent honors research specific to aspects of environmental economics and policy, followed by a oral presentation and a written report.

Honors Research: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Upper division standing. Eligibility restrictions related to GPA and unit accumulation. Open only to Environmental Economics and Policy majors in the College of Natural Resources

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

Hours & Format

Fall and/or spring: 15 weeks - 4 hours of independent study per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Letter grade. Final exam not required.

Honors Research: Read Less [\[-\]](#)

ENVECON 197 Field Study in Environmental Economics and Policy 1 - 4 Units

Terms offered: Fall 2016, Summer 2016 10 Week Session, Spring 2016

Supervised experience in off-campus organizations relevant to specific aspects of environmental economics and policy. Regular individual meetings with faculty sponsor and written reports required.

Field Study in Environmental Economics and Policy: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Consent of instructor

Credit Restrictions: Enrollment is restricted; see the Introduction to Courses and Curricula section of this catalog.

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

Hours & Format

Fall and/or spring: 15 weeks - 1-4 hours of independent study per week

Summer:

6 weeks - 1-9 hours of independent study per week

8 weeks - 1-7 hours of independent study per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

Field Study in Environmental Economics and Policy: Read Less [\[-\]](#)

ENVECON 198 Directed Group Studies for Advanced Undergraduates 1 - 3 Units

Terms offered: Spring 2016, Fall 2015, Spring 2015

Group study of selected topic or topics in Environmental Economics and Policy.

Directed Group Studies for Advanced Undergraduates: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Consent of instructor

Credit Restrictions: Enrollment is restricted; see the Introduction to Courses and Curricula section of this catalog.

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

Hours & Format

Fall and/or spring: 15 weeks - 1-3 hours of directed group study per week

Summer: 8 weeks - 1.5-5.5 hours of directed group study per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/ Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

Directed Group Studies for Advanced Undergraduates: Read Less [\[-\]](#)

ENVECON 199 Supervised Independent Study and Research 1 - 4 Units

Terms offered: Fall 2021, Spring 2021, Spring 2020

Enrollment restrictions apply. Open to qualified upper division students wishing to pursue special study and directed research under the direction of a member of the staff.

Supervised Independent Study and Research: [Read More](#) [+]

Rules & Requirements

Prerequisites: Upper division standing and consent of instructor

Credit Restrictions: Enrollment is restricted; see the Introduction to Courses and Curricula section of this catalog.

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

Hours & Format

Fall and/or spring: 15 weeks - 0 hours of independent study per week

Summer: 8 weeks - 1-4 hours of independent study per week

Additional Details

Subject/Course Level: Environmental Economics and Policy/
Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

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