

March 6, 2024

To: UCDavis Graduate Students

Re: Application for Teaching Assistant/Reader Positions  
Summer Session 2024 and Academic Year 2024 - 2025  
Department of Environmental Science and Policy

Attached you will find an application for teaching assistant and reader positions in the Department of Environmental Science and Policy. Included is a list of courses for academic year 2024-2025 and a list for summer session.

We recommend you provide copies of transcripts and summaries of student evaluations from a previous teaching assistantship. Please review your application for completeness and accuracy.

For first consideration, submit application electronically **by April 8, 2024**. Send the application as **one pdf** to Jennifer Carriere, [jacarriere@ucdavis.edu](mailto:jacarriere@ucdavis.edu). Exclude this cover letter and the list of course offerings in your electronic submission. Please use the following template for the file name of your application: **last name\_first name\_TA24**.

First round of TA selection notifications will be sent by May 1, 2024.

Thank you for your interest in the teaching assistant and reader positions with ESP.

Environmental Science and Policy (ESP)  
TA Supported Courses  
Academic Year 2024-2025

**ESP 1 Environmental Analysis.** (Fall) Analysis of the biological, physical, and social interactions, which constitute environmental problems, such as food productions, energy development and conservation, pollution, and the conservation of natural environments. TA leads discussion sections. Prefer applicants with demonstrated expertise in both natural sciences and policy analysis.

**ESP 10 Current Issues in the Environment.** (Winter) The science behind environmental issues, and policies affecting our ability to solve domestic and international environmental problems. General Education course. Applicants should have demonstrated communication skills; some background in both natural and social sciences is preferred.

**ESP 100 General Ecology.** (Fall, Winter) Ecological principles of biological systems, emphasizing populations and ecosystems. Applicants should have graduate level ecology and calculus.

**ESP 106 Environmental Data Science.** (Winter) Programming with environmental data using R. Understanding data types, loops, branching and functions. Reproducible workflows and version control to import, organize, explore, analyze and visualize environmental data.

**ESP 110 Principles of Environmental Science.** (Winter) Application of physical and chemical principles, ecological concepts, and systems approach to policy analysis of atmospheric environments, freshwater and marine environments, land use, energy supplies and technology, and other resources. TA principally leads problem-solving sessions; physics background is necessary.

**ESP 121 Population Ecology.** (Winter) Development of exponential and logistic growth models for plant and animal populations, analysis of age structure and genetic structure, analysis of competition and predator-prey systems. Emphasis is on developing models and using them to make predictions and solve problems.

**ESP 151 Limnology.** (Spring) The biology and productivity of inland waters with emphasis on the physical and chemical environment.

**ESP 151L Limnology Laboratory.** (Spring) Limnological studies of lakes, streams, and reservoirs with interpretation of aquatic ecology.

**ESP 160 The Policy Process.** (Spring) Alternative models of public policy making and application to case studies in the U.S. and California. Some knowledge of policy theory, social science research, and real-world policy experience is preferred. Good writing and organizational skills are also necessary. TA will lead discussion sections, grade exams, and moderate online content through Canvas.

**ESP 161 Environmental Law.** (Fall, Spring) Introduction for non-law school students to some of the principal issues in environmental law and the judicial interpretation of some important environmental statutes. Completion of undergraduate environmental law course or 2<sup>nd</sup> year law student standing required.

**ESP 162 Environmental Policy.** (Winter) Compares economic with socio-cultural approaches to the causes of environmental problems and strategies for addressing them. Includes different approaches to the policy process, policy instruments, and environmental behavior. Applies these principles to several problems. TA leads laboratory exercises and problem solving sessions. An economics background is necessary.

**ESP 163 Energy and Environmental Aspects of Transportation.** (Fall) Engineering, economic, and systems planning concepts. Analysis and evaluation of energy, air quality and selected environmental attributes of transportation technologies. Strategies for reducing pollution and petroleum consumption in light of institutional and political constraints. Evaluation of vehicle emission models.

**ESP 165 Climate Policy.** (Fall) Models, data and assumptions behind competing arguments regarding societal response to the prospect of climate change at the state, national and international level from economic, ethical and policy science perspectives. An economics background is necessary.

**ESP 166 Ocean and Coastal Policy.** (Fall) Overview of U.S. and International Ocean and coastal policy, including energy, coastal land-use and water quality, protected areas and species.

**ESP 168A Methods of Environmental Policy Evaluation.** (Fall) Examination of issues, concepts and methods applicable to environmental policy evaluation. Requires experience in policy and economic analysis.

**ESP 168B Methods of Environmental Policy Analysis.** (Winter) Continuation of course 168A, with emphasis on examination of the literature for applications of research and evaluation techniques to problems of transportation, air and water pollution, land use, and energy policy. Students will apply the methods and concepts by means of a major project.

**ESP 171 Urban and Regional Planning.** (Spring) How cities plan for growth in ways that minimize environmental harm. Standard city planning tools (general plan, zoning ordinance) and innovative new approaches. Focus on planning requirements and practices in California. Relationships between local, regional, state, and federal policy. Some knowledge of city planning or public policy preferred.

**ESP 172 Public Lands Management.** (Fall) Investigation of alternative approaches to public lands management by Federal and state agencies. The role each agency's legislation plays in determining the range of resource allocations. Public policy and economics background necessary.

**ESP 174 Environmental Justice Policy & Practice.** (Spring) History and frameworks of environmental justice; environmental justice policy; methods of spatial analysis. Emphasis on California and the United States. Experience using GIS for social science data and familiarity with public data sets relevant to environmental justice required.

**ESP 178 Applied Social Research Methods.** (Winter) Research methods for analysis of urban and regional land use, transportation, and environmental problems. Requires experience and background in methods for social research (surveys, statistics, demographic methods), as well as intermediate statistics.

**ESP 179 Environmental Impact Reporting.** (Winter) Methods of analysis used in environmental impact reporting. Biological or social science background necessary.

**ESM 195 Integrating Environmental Science and Management.** (Spring) Practical aspects of environmental improvement through integrated analyses of contemporary issues or problems associated with advocacy, regulation, science and resource management from the perspectives of the physical and ecological sciences and current policy/management. This is a capstone course.

**ECL 200A Principles and Application of Ecological Theory.** (Fall) Critical evaluation of ecological theory and applications to ecological management. Historical development of ecological theory emphasized. Applicants need a good working knowledge of ecology, having taken ECL200A&B or equivalent. Must be capable of running student discussions and explaining the fundamental theorems and models of ecology and evolution to graduate students.

**ECL 200B Principles and Application of Ecological Theory.** (Winter) Continuation of course 200A. Critical evaluation of theory and application in the areas of ecological adaptation and system plasticity, spatial and temporal scales, ecological energetics, and system dynamics. Synthesis of ecological theory into testable principles. Requires a good working knowledge of ecology, having taken ECL200A&B or equivalent. Must be capable of leading student discussions and explaining the fundamental theorems and models of ecology and evolution to graduate students.

### **Environmental Science and Policy (ESP)**

#### **TA Supported Courses Summer Session 2024**

ESP 1 (Summer Session I): 25% TA

ESP 171 (Summer Session I): 25% TA

ESP 179 (Summer Session I): 50% TA

ESP 100 (Summer Session II): 25% TA

**Environmental Science and Policy**  
**Teaching Assistant and Reader**  
**Application Academic Year**  
**2024-2025**

Name: \_\_\_\_\_  Current Full-Time Registered Grad  
 \_\_\_\_\_  Student Entering Fall 2024  
 Email: \_\_\_\_\_  
 Student ID#: \_\_\_\_\_ Major Professor: \_\_\_\_\_  
 Home Dept: \_\_\_\_\_ Graduate Program: \_\_\_\_\_

List course numbers for which you are qualified and seek appointment, in order of personal priority. Justify each of your choices on the next page.

COURSE and AVAILABILITY

	First Choice	Second Choice	Other Courses of Interest
Summer 2024			
Fall 2024			
Winter 2025			
Spring 2025			

SUMMARY OF TEACHING EXPERIENCE, INCLUDING UCD. Indicate TA or Reader.

Institution	Course	Quarter/Year	Instructor

I have taken the TA Orientation course through the Center for Educational Effectiveness (year):  
 or I plan to take the TA Orientation course (year):

List of attachments recommended:

- \_\_\_\_\_ Graduate and undergraduate transcripts, if available.
- \_\_\_\_\_ Summaries of evaluations from previous teaching experience, as available.

Describe why you are particularly well qualified to teach or read for each of the courses you have identified in this application; you may combine courses with similar requirements. BE SPECIFIC. Please include relevant course preparation, field experience, or prior teaching qualifications. Attach your response.

READER: See attached page for response.

The University of California, Davis, and the Department of Environmental Science and Policy are interested in candidates who are committed to the highest standards of scholarship and professional activities, and to the development of a campus climate that supports equality and diversity. The University of California is an affirmative action/equal opportunity employer.

Inquiries regarding the University's equal employment opportunity policies may be directed to: Provost and Executive Vice Chancellor and Affirmative Action Officer, Office of the Chancellor, 5th Floor Mrak Hall, (530) 752-2065 or FAX (530) 752-2400. Speech or hearing impaired persons may dial (530) 752-7320 (TDD).