



DEPARTMENT OF ENVIRONMENTAL SCIENCE AND POLICY  
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March 13, 2017

To: UC Davis Graduate Students  
Re: Application for Teaching Assistant/Reader Positions  
Academic Year 2017-18  
Department of Environmental Science and Policy

Attached you'll find an application for teaching assistant and reader positions in the Department of Environmental Science and Policy. A list of proposed courses for academic year 2017-2018 is included; however, actual positions may vary. Courses receive TA or reader support based on enrollment and availability of funding.

We recommend that you provide (1) copies of transcripts; (2) summaries of student evaluations from a previous teaching assistantship; (3) optional letters of recommendation. Please review your application for completeness and accuracy.

For first consideration, applications should be submitted electronically **by April 14, 2017**. 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\_TA17**.

If selected, you will be notified by mid-June. We continue to accept applications throughout the year.

Thank you for your interest in the teaching assistant and reader positions in the Environmental Science and Policy Department.

Environmental Science and Policy (ESP)  
TA Supported Courses  
Academic Year 2017-2018

**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, Spring) Ecological principles of biological systems, emphasizing populations and ecosystems. Applicants should have graduate ecology and calculus.

**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 123 Introduction to Field and Laboratory Methods in Ecology.** (Spring) Introduces students to methods used for collecting ecological data in field and laboratory situations. Methods used by population ecologists and community ecologists; emphasis on experimental design, scientific writing and data analysis.

**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 155 Wetland Ecology.** (Fall) Intro to wetland ecology. The structure and function of major wetland types and principles that are common to wetlands and that distinguish them from terrestrial and aquatic ecosystems. Ecology background required; wetland ecology preferred.

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

**ESP 167 Energy Policy.** (Spring) Survey of primary energy resources (fossil, renewable, nuclear), energy conservation methods, future energy demand scenarios, and environmental impacts of energy. Overview of energy policy in the U.S. Analysis of policy alternatives for addressing energy-related environmental and national security issues.

**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.** (Spring) 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 169 Water Policy & Politics.** (Spring) The governance of water, including issues of water pollution/quality and water supply. The politics of water decision-making and effectiveness of water policy. Broad focus on federal water policy, with case examples from nationally significant U.S. watersheds.

**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 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.

**ESP 191A Workshop on Food System Sustainability.** (Fall) First in a two-quarter senior capstone course sequence. Identify projects addressing specific problems and opportunities of sustainable agriculture and food-systems, form multidisciplinary teams, and identify and consult with key stakeholders to understand their needs and concerns. Familiarity with the learning objectives of the Sustainable Agriculture and Food Systems major would be beneficial. Requires commitment to TA both ESP 191A and ESP 191B.

**ESP 191B Environmental Impact Reporting.** (Winter) Continuation of ESP 191A. Student teams conduct analyses of a specific issue in sustainable agriculture or food systems, prepare a critical assessment of technological, economic, environmental, and social dimensions of options for action and present their results to stake-holders. Familiarity with the learning objectives of the Sustainable Agriculture and Food Systems major would be beneficial. Requires commitment to TA both ESP 191A and ESP 191B.

**ECL 200A Principles and Application of Ecological Theory.** (Fall) Critical evaluation of ecological theory and applications to ecological management. Historical development of ecological theory is 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 grad 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.

**Note:** Readers for additional courses are allocated based on enrollment figures.



Describe why you are particularly well qualified to teach or read for each of the courses you've 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 additional pages, as needed.

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).