higher must be earned to qualify the student for honors distinction at graduation. (Deferred grading only; pending completion of sequence.) —W. W.

198. Directed Group Study (1-5)
Prerequisite: consent of instructor. (P/NP grading only.)

Ecological Management and Restoration

(College of Agricultural and Environmental Sciences)

Faculty. See Plant Sciences, on page 514.

The Major Program

This major is designed for students who are interested in understanding how to manage and restore wildland and rangeland plant communities. Courses are selected to provide an interdisciplinary background that encompasses ecology, applied plant biology, and the social sciences. Students will acquire a core understanding of natural and managed ecosystems and how they function, interact with the natural environment, are connected with human society and social change, and are restored and managed.

The Program. The curriculum provides depth in the ecological and botanical sciences directed toward an integrated understanding of how communities and ecosystems function and how this knowledge can assist in their management and restoration. Coursework in ecological and policy and law expose the students to the social drivers and constraints of ecosystem management. All students gain practical experience through practical field courses and required internships. Students may also pursue additional study in fields such as ecology, agroecology, environmental studies, geography or weed science.

B.S. Major Requirements:

UNITS
Preparatory Subject Matter: 49-58
Biological Sciences 2A, 2B, 2C .............. 15
Chemistry 2A, 2B .............................. 10
Physics 1A, 1B or Physics 7A, 7B, 7C ........... 6-12
Mathematics 16A, 16B or Mathematics 17A, 17B or Mathematics 21A, 21B ........... 6-8
Plant Sciences 120 .................................. 4
Soil Science 100 .................................... 5
Plant Sciences 101 or Environmental Science and Policy 1 ..................... 3-4

Depth Subject Matter: 54-69
Environmental Horticulture 160, 160L ....... 4
Soil Science 102 or 105 or 111 or 118 or 120 ...................................................... 8-15
Two ecology courses chosen from: Environmental Science and Policy 155, Plant Biology 17, Plant Sciences 131, 144, 147
Wildlife, Fish and Conservation Biology 156, 157 ........................................... 58
Evolution and Ecology 100 or Plant Biology 102 or 116 ...................................... 4-5
Plant Sciences 152 or Environmental Horticulture 150 ............................... 3-4
Four restoration/conservation courses chosen from:
Plant Sciences 130, 135, 150, Environmental Science and Management 141

Ecological Science and Policy 127, 155L
Wildlife, Fish, and Conservation Biology 154, 155 ............................................ 11-16
Plant Sciences 176 .................................. 4
Environmental Science and Management 100, Hydrology 143, 147, or 151 ........ 3-4
Plant Sciences 101 or Environmental Horticulture 120 .................................. 3-4
Plant Sciences 100C Landscape Architecture 180F or Plant Sciences 163 ........ 3
Plant Sciences 111 or Plant Sciences 100A ................................................... 3-4
Environmental Science and Policy 160 or 161 or 171 or 172 or 179 ....................... 4-5
Internship: Plant Sciences 192 or 164, must be selected in consultation with master adviser ............................................. 2
In addition to the required coursework listed above, students might consider taking some of the following courses:
Entomology 107, Hydrology 124, Landscape Architecture 150, Plant Sciences, 158, 135, 141 and 162, Science and Society 18, and Soil Science 109

Total Units for the Major: 103-127

Major Adviser. T.P. Young

Advising Center for the major, including peer advising, is located in 1220 Plant and Environmental Sciences 530-752-1715.

Ecology
(A Graduate Group)

Edwin Grosholz, Ph.D., Chairperson of the Group

Group Office. 1005 Wickson Hall 530-752-6752; http://ecology.ucdavis.edu

Faculty
Gwen Arnold, Ph.D., Assistant Professor
(Entomology; Evolution and Ecology)
Heidi L. Ballard, Ph.D., Associate Professor
(Entomology; Evolution and Ecology)
Marissa L. Basket, Ph.D., Associate Professor
(Entomology; Evolution and Ecology)
Alison M. Berry, Ph.D., Professor (Plant Sciences)
Robert L. Bettioghi, Ph.D., Professor (Anthropology)
Monique Borgerhoff Mulder, Ph.D., Professor (Anthropology)
Louis W. Bottford, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Walter M. Boyce, Ph.D., Professor
(Anthropology; Evolution and Ecology)
Patrick H. Brown, Ph.D., Professor (Plant Sciences)
Mary Cadenasso, Ph.D., Associate Professor (Plant Sciences)
James Carey, Ph.D., Professor (Entomology)
Tim Caro, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Edward P. Casswell-Chen, Ph.D., Professor (Nematology)
Thomas Coombs-Hahn, Ph.D., Professor
(Anthropology; Evolution and Ecology)
Anthony V. Cornel, Ph.D., Associate Professor (Anthropology)
Howard V. Cornell, Ph.D., Professor Emeritus
(Animal Science; Evolution and Ecology)
Margaret Crofoot, Ph.D., Assistant Professor
(Anthropology; Evolution and Ecology)
Randy A. Dahlgren, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Christina S. Darwent, Ph.D., Associate Professor
(Anthropology; Evolution and Ecology)
Serge I. Doroshov, Ph.D., Professor
(Anthropology; Evolution and Ecology)
John M. Eadie, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Jonathan Eisen, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Deborah L. Elliott-Fisk, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Valerie. T. Evine, Ph.D., Associate Professor
(Plant Sciences)
Ian C. Falloon, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Nana A. Fagure, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Y. Hossein Farzin, Ph.D., Professor
(Agricultural and Resource Economics)
Howard Ferris, Ph.D., Professor (Nematology)
Albert Fischer, Ph.D., Professor (Plant Sciences)
Janet E. Foley, Ph.D., Professor (VM: Epidemiology)
Brian Gaylord, Ph.D., Associate Professor
(Animal Science; Evolution and Ecology)
Shu Geng, Ph.D., Professor (Plant Sciences)
Paul Gepts, Ph.D., Professor (Plant Sciences)
Matthew E. Gilbert, Ph.D., Assistant Professor (Animal Science; Evolution and Ecology)
Steven E. Greco, Ph.D., Associate Professor
(Anthropology; Evolution and Ecology)
Jennifer Gremer, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Susan L. Handy, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Susan Harrison, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Alan Hastings, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Robert Hijmans, Ph.D., Associate Professor
(Animal Science; Evolution and Ecology)
Tessa Hill, Ph.D., Associate Professor (Geology)
Marcel Holy, Ph.D., Professor
(Animal Science; Evolution and Ecology)
William Harrow, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Benjamin Z. Houlton, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Siles S. Q. Hung, Ph.D., Associate Professor
(Animal Science; Evolution and Ecology)
Louise E. Jackson, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Maria A. Jasieniuk, Ph.D., Associate Professor
(Animal Science; Evolution and Ecology)
Yufang Jin, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Richard Karban, Ph.D., Professor
(Anthropology; Evolution and Ecology)
Emil M. Kebreab, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Dietmar Kuehl, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Emilio A. Laca, Ph.D., Professor
(Animal Science; Evolution and Ecology)
John Largier, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Andrew M. Latimer, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Sharon P. Lawler, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Edwin E. Lewis, Ph.D., Professor
(Animal Science; Evolution and Ecology)
C. Y. Cynthia Lin, Ph.D., Associate Professor
(Animal Science; Evolution and Ecology)
Mark Lubell, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Brenda L. McCown, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Christine Krueler Johnson, Ph.D., Associate Professor
(Animal Science; Evolution and Ecology)
Susan P. Lawler, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Richard L. McElreath, Ph.D., Associate Professor
(Anthropology; Evolution and Ecology)
Neil McRoberts, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Michael R. Miller, Ph.D., Assistant Professor
(Animal Science; Evolution and Ecology)
Frank M. Mitloehner, Ph.D., Associate Professor
(Animal Science; Evolution and Ecology)
Steven G. Morgan, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Peter B. Moyle, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Stephen A. Nadler, Ph.D., Professor
(Animal Science; Evolution and Ecology)
David Neale, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Gabrielle Nevitt, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Peter B. Moye, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Steven A. Nadler, Ph.D., Professor
(Animal Science; Evolution and Ecology)
David Neale, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Gabrielle Nevitt, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Debbie A. Niemeier, Ph.D., Professor
(Animal Science; Evolution and Ecology)
Gregory Pasternack, Ph.D., Professor
(Animal Science; Evolution and Ecology)