Published by
Office of the University Registrar
University of California
One Shields Avenue
Davis, CA 95616-8692

Credits
Editorial and production coordination:
Randall Larson-Maynard, Senior Editor;
Office of the University Registrar

Cover design:
Office of Strategic Communications;
Creative Communications

Photography:
Mediaworks

NOTICE: This General Catalog Supplement is not a contract nor an offer to enter into a contract. While every effort is made to ensure the accuracy of the information provided in this General Catalog Supplement, it must be understood that all courses, course descriptions, designations of instructors, curricular and degree requirements and other academic information described herein are subject to change or elimination at any time without notice or published amendment to this General Catalog Supplement. In addition, The University of California reserves the right to make changes at any time, without prior notice, to other programs, policies, procedures and information, which are described in this catalog only as a convenience to its readers. Fees and all other charges are subject to change at any time without notice. Students should consult the appropriate academic or administrative department, school, college, graduate division or other service provider for currently accurate information on any matters described in this General Catalog Supplement; contact information is available at http://www.ucdavis.edu.
# Version History

The Version History records each version and the changes made for that version. Click on the blue department name to go directly to the department.

## Course Supplement—Version History

**Version 1.0; 6.15.2016**

- Agricultural and Resource Economics; ARE 136, 143, 144, 171A-B, 173, 176
- African American and African Studies; AAS 107B
- American Studies; AMS 160
- Animal Science; ANS 129, 136, 137, 147
- Anthropology; ANT 135
- Arabic; ARB 21A
- Art Studio; ART 401
- Avian Science; AVS 13, 198
- Biotechnology; BIT 91
- Chemistry; CHE 107A, 128B-C, 129A
- Design; DES 156
- Ecology; ECL 200AN-BN
- Education Abroad Program; EAP 192
- Engineering: Biomedical; BIM 201, 262
- Engineering: Chemical; ECH 269
- Engineering: Computer Science; ECS 20, 60
- Environmental Science and Policy; ESP 175
- Epidemiology; EPI 224
- Global Disease Biology; GDB 90
- History; HIS 3
- Human Rights; HMR 190
- Hydrology; HYD 145
- Italian; ITA 8A, 8AS, 8B, 8BS
- Mathematics; MAT 21B-D
- Medicine; Ophthalmology; OPT 499
- Native American Studies; NAS 133, 133A-B
- Physics; PHY 12
- Plant Pathology; PIP 90
- Political Science; POL 11A-D, 12A-B
- Russian; RUS 142
- Science and Society; SAS 14
- Soil Science; SSC 112
- Statistics; STA 194HA-HB
- Textiles and Clothing; TXC 108A-B
- Veterinary Medicine: Preventive Veterinary Medicine; MPM 212
- Wildlife, Fish, and Conservation Biology; WFC 122, 130, 134, 134L, 136, 141, 152, 154

## Policies and Requirements Addendum—Version History

**Version 1.0; 6.15.2016**

- THE MINOR
Table of Contents

The 2016-2018 UC Davis General Catalog Supplement contains updated information regarding requirements and courses for the 2016-2018 academic years. Use this document in conjunction with the 2016-2018 UC Davis General Catalog. If a department is not listed in this document, there are no changes to that department's programs.

Version History ............ 1
Introduction............... 3
Course Supplement ......... 3

African American and African Studies ........ 3
Agricultural and Resource Economics ........ 3
American Studies ................... 3
Animal Science ..................... 3
Anthropology ...................... 4
Arabic ........................... 4
Art Studio ........................ 4
Avian Science ..................... 4
Biotechnology ...................... 4
Chemistry ......................... 4
Design ........................... 4
Ecology .......................... 5
Education Abroad Program ............ 5
Engineering: Biomedical .............. 5
Engineering: Chemical .............. 5
Engineering: Computer Science ........ 5
Environmental Science and Policy ........ 5
Epidemiology ...................... 5
Global Disease Biology ............... 5
History ........................... 5
Human Rights ........................ 6
Hydrology ........................ 6
Italian ........................... 6
Mathematics ....................... 6
Medicine: Ophthalmology ............ 6
Native American Studies ............... 6
Physics .......................... 6
Plant Pathology ........................ 6
Political Science .................... 6
Russian .......................... 7
Science and Society ................... 7
Soil Science ........................ 7
Statistics .......................... 7
Textiles and Clothing ................. 7
Veterinary Medicine: Preventive Veterinary Medicine ........ 7
Wildlife, Fish, and Conservation Biology ... 7

Policies & Requirements

Addendum ............... 9

THE MINOR ............... 9
Introduction

The 2016-2018 General Catalog Course Supplement and Policies & Requirements Addendum addresses important changes to the UC Davis 2016-2018 General Catalog. Changes are contained in two sections; the Course Supplement and Policies & Requirements Addendum.

Course Supplement

Changes, cancellations, or the addition of new courses, are contained in the Course Supplement, below.

Policies and Requirements Addendum

Revised or the addition of new undergraduate/graduate/professional degree programs and requirements, and revised or the addition of new General Catalog policies or procedures are contained in the Policies & Requirements Addendum.

Course Supplement

African American and African Studies

New and changed courses in African American and African (AAS)

Upper Division


(change in existing course—eff. winter 17)

Agricultural and Resource Economics

New and changed courses in Agricultural and Resource Economics (ARE)

Upper Division


(change in existing course—eff. winter 17)


(change in existing course—eff. winter 17)

144. Real Estate Economics (3) Lecture—3 hours. Prerequisite: course 100A. Pass One open to Managerial Economics (AMGE) Majors and Agricultural and Resource Economics (GARE) Graduate Majors. The economic theory, analysis, and institutions of real estate markets and related financial markets. Case studies drawn from the raw land, single family, multifamily, industrial and office real estate markets. GE credit: SocSci | SS. —S. (S.)

(change in existing course—eff. winter 17)


(change in existing course—eff. winter 17)


(change in existing course—eff. winter 17)

175. Natural Resource Economics (4) Lecture—3 hours; discussion—1 hour. Prerequisite: course 100B or Economics 100 or the equivalent. Pass One open to Managerial Economics (AMGE) and Environmental Policy Analysis and Planning (AEPP) Majors and Agricultural and Resource Economics (GARE) Graduate Majors. Economic concepts and policy issues associated with natural resources, renewable resources, [ground water, forests, fisheries, and wildlife populations] and non-renewable resources [minerals and energy resources, soil]. (Same course as Environmental Science and Policy 175.) GE credit: SocSci | SS. —S. (S.)

(change in existing course—eff. winter 17)

176. Environmental Economics (4) Lecture—3 hours; discussion—1 hour. Prerequisite: course 100B or Economics 100. Pass One open to Managerial Economics (AMGE) Majors and Agricultural and Resource Economics (GARE) Graduate Majors. Role of the environment in economic activity and methods for protecting and enhancing environmental quality; implications of market failures for public policy; design of environmental policy; theory of welfare measurement; measuring the benefits of environmental improvement. GE credit. SocSci | SS. —W (W)

(change in existing course—eff. winter 17)

American Studies

New and changed courses in American Studies (AMS)

Upper Division

160. Undergraduate Seminar in American Studies (4) Seminar—3 hours; term paper. Pass One open to American Studies majors in upper division standing only. Pass Two non-American Studies majors must obtain consent from instructor. Intensive reading, discussion, research, and writing by small groups in selected topics of American Studies scholarship; emphasis on theory and its application to American material. May be repeated one time for credit when content differs. —W, S, Su.

(change in existing course—eff. winter 17)

Animal Science

New and changed courses in Animal Science (ANS)

Upper Division

129. Environmental Stewardship in Animal Production Systems (3) Lecture—3 hours. Prerequisite: course 2, Biological Sciences 2A, 2B, 2C, Chemistry 8A and 8B or 118A and 118B. Management principles of environmental stewardship for grazing lands, animal feed-
bines the work of courses ARB 21, 22, and 23. Modern Standard Arabic through development of all language skills in a cultural context with emphasis on communicative proficiency. Not open for credit to students who have completed course 21, 22 or 23. Offered irregularly. GE credit: ARtHum | AH, WC. — Su. (Su.)

(new course—eff. summer 17)

### Chemistry

#### New and changed courses in Chemistry (CHE)

##### Upper Division

107A. Physical Chemistry for the Life Sciences (3)

- Lecture—3 hours. Prerequisite: course 2C or course 2CH; Mathematics 16C, 17C, or 21C; one year of college level physics at a level comparable to or higher than Physics 7A, 7B, 7C. Physical chemistry intended for majors in the life science area. Introduction to the development of classical and statistical thermodynamics including equilibrium processes and solutions of both non-electrolytes and electrolytes. The thermodynamic basis of electrochemistry and membrane potentials. GE credit: SciEng | SE. — F, W. (F, W)

(new course—eff. winter 17)

128B. Organic Chemistry (3)

- Lecture—3 hours. Prerequisite: course 128A or consent of instructor. Continuation of course 128B with emphasis on the chemistry of alcohols, ethers, their sulfur analogs, and carbonyl compounds. Introduction to the application of spectroscopic methods to organic chemistry. Introduction to synthesis of moderately complex organic molecules. Full credit to students who completed 88 or 118A; not open for credit to students who have completed course 118B. GE credit: SciEng | SE. — F, S, F, S.

(new course—eff. winter 17)

128C. Organic Chemistry (3)

- Lecture—3 hours. Prerequisite: course 128B. Continuation of course 128B with emphasis on enolate condensations and the chemistry of amines, phenols, and sugars; selected biologically important compounds. Full credit to students who completed course 118B; not open for credit to students who have completed course 118C. GE credit: SciEng | SE. — F, S, F.

(new course—eff. winter 17)

129A. Organic Chemistry Laboratory (2)

- Lecture—1 hour; laboratory—3 hours. Prerequisite: C or better in course 2C or 2CH; course 128A (may be taken concurrently). Introduction to laboratory techniques of organic chemistry. Emphasis on methods used for separation and purification of organic compounds. Full credit to students who completed course 88B; not open for credit to students who have completed course 118B. — F, W. (F, W)

(new course—eff. winter 17)

### Design

#### New and changed courses in Design (DES)

##### Upper Division

156. Graphituthe: Architecture in the Age of New Media (4)

- Studio—6 hours. Prerequisite: course 1, 14, 15, 16. Priority to Design majors. New media and its impact on environmental design; analysis of contemporary projects at the intersection of architecture and new media; time-based strategies of representation; digital narrative. GE credit: ARtHum | AH, VL, — S. (S.)

(Snyder)

(new course—eff. fall 16)
New and changed courses in Ecology (ECL)

Graduate

200AN. Principles and Applications of Ecology (5)
Lecture—4 hours; discussion—1 hour. Prerequisite: First course in Ecology [e.g., Environmental Science and Policy 100], Statistics 102, Mathematics 16A, 16B or consent of instructor. Pass One open to graduate majors. Course covers principles of community structure and functioning, species diversity patterns, ecosystem ecology and biogeochemistry, landscape ecology, biogeography and phylogenetics. —F. (F.) Harrison
(new course—eff. fall 14)

200BN. Principles and Applications of Ecology (5)
Lecture—4 hours; discussion—1 hour. Prerequisite: First course in Ecology [e.g., Environmental Science and Policy 100], Statistics 102, Mathematics 16A, 16B or consent of instructor. Pass One open to graduate majors. Provides a broad background in the principles and applications of ecology, and serves as a foundation for advanced ecology courses. Topics include ecophysicsiology, behavioral ecology, population ecology, genetics and evolution. Emphasis on historical developments, current understanding, and real world applications. —W. (W.)
(new course—eff. winter 17)

Education Abroad Program

New and changed courses in Education Abroad Program (EAP)

Upper Division

192. Internship in Education Abroad (1-12)
Internship—3—36 hours. Prerequisite: participation in a study abroad program. Internship with Education Abroad program, potentially either at university or abroad. May be repeated for up to 12 units of credit. [P/NP grading only].—F. W, S, Su. [F, W, S, Su] 
(change in existing course—eff. winter 17)

Engineering: Biomedical

New and changed courses in Biomedical Engineering (BIM)

Graduate

201. Scientific Communication for Biomedical Engineers (1)
Lecture/discussion—1 hour. Prerequisite: consent of instructor. Course is designed to improve the written and oral communication skills of first-year graduate students through writing fellowship proposals, analyzing data, and critically reviewing research papers, product development and biotechnology careers. [S/U grading only].—F. (F.) Leach
(new course—eff. fall 16)

262. Cell and Molecular Biophysics for Biologists (4)
Lecture—4 hours. Prerequisite: course 284 or equivalent; graduate standing; undergraduate students by consent of instructor. Introduction to fundamental mechanisms governing the structure, function, and assembly of biomacromolecules. Emphasis is on a quantitative understanding of the nano-to-microscale interactions between and within individual molecules, as well as of their assemblies, in particular membranes. Not open for credit to students who have completed Biomedical Engineering 162.

(Same course as Chemical Engineering 269.)—F. (F.) Heinrich
(change in existing course—eff. winter 17)

Environmental Science and Policy

New and changed courses in Environmental Science and Policy (ESP)

Upper Division

175. Natural Resource Economics (4)
Lecture—3 hours; discussion—1 hour. Prerequisite: Agricultural and Resource Economics 100B or Economics 100 or the equivalent. Pass One open to Managerial Economics (AMGE) and Environmental Policy Analysis and Planning (AEP). Majors and Agricultural and Resource Economics (GARE) Graduate Majors. Economic concepts and policy issues associated with natural resources, renewable resources [ground water, forests, fisheries, and wildlife populations] and non-renewable resources [minerals and energy resources, soil]. [Same course as Agricultural and Resource Economics 175.] GE credit: SocSci |SS. —S. (S.) Lin 
(change in existing course—eff. winter 17)

Epidemiology

New and changed courses in Epidemiology (EPI)

Graduate

224. Health and Ecological Risk Analysis (4)
Lecture—2 hours; laboratory—4 hours. Methodological approach to risk analysis for human and animal-related health and ecological issues. Basic principles of risk analysis, including perception, communication, assessment and management. Emphasis on the assessment of risk. —S. (S.)
(change in existing course—eff. winter 17)

Global Disease Biology

New and changed courses in Global Disease Biology (GDB)

Lower Division

90. Introduction to Global Disease Biology (1)
Seminar—1 hour. Introduction to the Global Disease Biology major, research and internship opportunities, and potential career paths in human, animal, and plant health. Communication, ethics and the nature of science. [P/NP grading only].—F. (F.) Rizzo
(new course—eff. fall 14)

History

New and changed courses in History (HIS)

Lower Division

3. Cities: A Survey of World Cultures (4)
Lecture—3 hours; lecture/discussion—1 hour. Survey of urban world cultures, focusing on up to ten cities selected by the instructor. Offered irregularly. GE credit: ArtHum or SocSci, Div, Wrt |AH or SS, WC. 
(change in existing course—eff. winter 17)
Human Rights

New and changed courses in Human Rights (HMR)
Upper Division
190. Seminar (4)
Seminar—4 hours; term paper. Emphasis on current scholarly debate about the methods for analyzing and comparing diverse human rights issues with the intention of integrating disciplined study of the field.
(new course—eff. fall 16)

Hydrology

New and changed courses in Hydrology (HYD)
Upper Division
145. Water Science and Design (4)
Lecture—3 hours; laboratory—3 hours. Prerequisite: any one of the following or consent of instructor: Hydrology 141, Mathematics 16C, 17C or 21C. Introduction to watershed engineering, storm water management, design of hydraulic systems. Topics include hydrological risk analysis, flood routing, design storms, open channel flow, pipes, culverts, spillways, and detention basins. Class project and field trips will apply theory to real-life problems. Offered in alternate years. GE credit: SciEng | VL, WC.
(new course—eff. fall 16)

Italian

New and changed courses in Italian (ITA)
Lower Division
8A. Italian Conversation (3)
Discussion—3 hours. Prerequisite: course 3 or the equivalent. Italian conversation with peers in classroom setting. GE credit: Ol, WC.—F, S. (F, S.)

8AS. Italian Conversation (3)
Discussion—3 hours. Prerequisite: course 3 or the equivalent. Italian conversation in local context outside United States. GE credit: Ol, WC.

8B. Italian Conversation (3)
Discussion—3 hours. Prerequisite: course 8A. Italian conversation with peers in a classroom setting. Offered irregularly. GE credit: WC.

8BS. Italian Conversation (3)
Discussion—3 hours. Prerequisite: course 8A. Italian conversation in local context outside United States. Offered irregularly. GE credit: Ol, WC.—F. (F)

Medicine: Ophthalmology

New and changed courses in Medicine: Ophthalmology (OPT)
Professional
499. Research in Ophthalmology (1-12)
Variable—3-36 hours. Prerequisite: medical students with consent of instructor. Individual research on selected topics in optics and visual physiology, cornea and external disease. (H/P/F grading only.) Offered irregularly. GE credit: SciEng | VL, WC.—F, W, S. (F, W, S.)

Native American Studies

New and changed courses in Native American Studies (NAS)
Upper Division
133. Ethnohistory of Native People of Mexico and Central America to 1500 (4)
Lecture/discussion—4 hours. Ethnohistorical development of pre-colonial, colonial, post-colonial Mexican and Central American indigenous peoples; the impact of economic and political factors on the process of cultural adaptation. Attention is given to the questions of nation-building, forced assimilation, indigenous resistance, organized political responses. GE credit: SocSci, Div | SS.

Political Science

New and changed courses in Political Science (POL)
Lower Division
11A. America Decides: Who Will Win This Year’s Election? (4)
Lecture—3 hours; term paper or discussion—1 hour. Survey of factors influencing presidential and congressional elections. Analysis of candidate nominations, campaign strategy, campaign finance, media coverage, and voter decision-making. Offered irregularly. GE credit: ACGH, SS, WE.—F, W, S. (F, W, S.)

Physics

New and changed courses in Physics (PHY)
Lower Division
12. Visualization in Science (3)
Lecture—3 hours. Production, interpretation, and use of images in physics, astronomy, biology, and chemistry as scientific evidence and for communication of research results. Offered irregularly. GE credit: SciEng | VL, WC, WE.

Plant Pathology

New and changed courses in Plant Pathology (PLP)
Lower Division
90. Introduction to Global Disease Biology (1)
(cancelled course—eff. fall 14)

133A. Ethnohistory of Native Peoples of Mexico and Central America 1500 to 2000 (4)
Lecture/discussion—4 hours; term paper. Ethnohistorical development of the indigenous peoples of Mexico and Central America up to and including the earliest period of European contact. Focus is on indigenous written historical records of the Maya, Mixtec, and Nahua peoples. May be repeated one time for credit. This course can be repeated provided the student chooses a new topic for the term paper/project and for the PowerPoint presentations. The material is so extensive that more than one exposure to it can be very beneficial to students wanting to focus on ancient Mesoamerica. Offered in alternate years. GE credit: ArtHum or SocSci, Div | AH or SS, VL, WC, WE.

(new course—eff. winter 17)

133B. Ethnohistory of Native Peoples of Mexico and Central America 1500 to 2000 (4)
Lecture/discussion—4 hours; term paper. Ethnohistorical development of the indigenous peoples of Mexico and Central America from 1500 to contemporary times. Focus on social and cultural dynamics, particularly the role of indigenous people in the process of nation-state building in Mexico and Central America. Offered in alternate years. GE credit: ArtHum or SocSci, Div, Wrt | AH, OL, SS, WE.

(new course—eff. winter 17)

Fall 2011 and on Revised General Education (GE): AH—Arts and Humanities; SE—Science and Engineering; SS—Social Sciences; ACGH—American Cultures; DD—Domestic Diversity; OL—Oral Skills; QL—Quantitative; VL—Visual; WC—World Cultures; Wrt—Writing Experience

Pre-Fall 2011 General Education (GE): ArtHum—Arts and Humanities; SciEng—Science and Engineering; SocSci—Social Sciences; Div—Domestic Diversity; Wrt—Writing Experience

Quarter Offered: F—Fall, W—Winter, S—Spring, J—Summer; 2017-2018 offering in parentheses
118. Citizen Lawmaking: Direct Democracy, Public Policy & Political Representation in America (4)
Lecture—3 hours; term paper or discussion—1 hour. Analysis of direct participation by citizens in the lawmaking process. Offered irregularly. GE credit: ACGH, SS, WE—F, W, S. (F, W, S.) Mackenzie (new course—eff. fall 16)

11C. Politics and Film (4)
Lecture—3 hours; term paper or discussion—1 hour. Survey of portrayals of politics and policy issues in moving pictures. Analysis of political processes, policy development, social mores, and historical periods as highlighted in Hollywood movies, television, and/or documentary films. Offered irregularly. GE credit: ACGH, VL, WE—F, W, S. (F, W, S.) Boydston (new course—eff. fall 16)

11D. Political Persuasion (4)
Lecture—3 hours; term paper or discussion—1 hour. Examination of political influence and persuasion. Offered irregularly. GE credit: SS, WE—F, W, S. (F, W, S.) Boudreau (new course—eff. fall 16)

12A. Politics and Sports (4)
Lecture—3 hours; term paper or discussion—1 hour. Core issues in American and world politics through the lens of sports and the athletes who play them. The intersection of American civil rights movement, the Cold War, Middle East Tensions, and democratization. Offered irregularly. GE credit: SS, WE—F, W, S. (F, W, S.) Schiener (new course—eff. fall 16)

12B. Climate Change and Politics (4)
Lecture—3 hours; term paper or discussion—1 hour. Analysis of political institutions’ response and adaptation to climate change. Offered irregularly. GE credit: SS, WE—F, W, S. (F, W, S.) Shugart (new course—eff. fall 16)

Russian

New and changed courses in Russian (RUS)

Upper Division
142. Women in Russian Culture (4)
Lecture/discussion—3 hours; term paper. Study of the representation of women in contemporary Russian fiction and film. Exploration of issues such as family dynamics/motherhood, sexuality, work, and women’s relationship to the state. Offered in English. GE credit: ArtHum | AH, OL, VL, WC, WE—Kaminer (change in existing course—eff. winter 17)

Science and Society

New and changed courses in Science and Society (SAS)

Lower Division
14. Forests and Society (3)
Lecture—2 hours; discussion—1 hour; term paper. Class size limited to 120 students. Sociology, natural history and current issues of the world’s forests. Application of scientific principles in outdoor laboratories and on-campus field trips. GE credit: ACGH, SE or SS, OL, SI, WE—S. (S.) Horwath (new course—eff. fall 16)

Soil Science

New and changed courses in Soil Science (SSC)

Upper Division
112. Soil Ecology (3)
Lecture—3 hours; discussion—1 hour. Prerequisite: Biological Sciences 2B and 2C or course 100 or consent from instructor. Overview of living constituents of soils, their interactions, importance to, and impact on biogeochemical cycles, decomposition, and soil properties. Practical applications of soil biological diversity are emphasized. GE credit: SS, WE—F. (F) Rodrigues (change in existing course—eff. fall 17)

Statistics

New and changed courses in Statistics (STA)

Upper Division
194HA. Special Studies for Honors Students (4)
Independent study—12 hours. Prerequisite: senior qualifying for honors. Directed reading, research and writing, culminating in the completion of a senior honors thesis or project under direction of a faculty adviser. (Deferred grading only, pending completion of sequence.) GE credit: SciEng | SE. (change in existing course—eff. fall 16)

194HA. Special Studies for Honors Students (4)
Independent study—12 hours. Prerequisite: senior qualifying for honors. Directed reading, research and writing, culminating in the completion of a senior honors thesis or project under direction of a faculty adviser. (Deferred grading only, pending completion of sequence.) GE credit: SciEng | SE. (change in existing course—eff. fall 16)

Textiles and Clothing

New and changed courses in Textiles and Clothing (TXC)

Upper Division
180A. Introduction to Research in Textiles (2)
Laboratory—6 hours. Prerequisite: senior standing with textile-related major, and consent of instructor. Senior thesis on independent problems. Research begun in course 180A will be continued and completed in course 180B. (Deferred grading only, pending completion of sequence.) GE credit: SocSci | SS, WE—F, W, S. (F, W, S.) Fangue (change in existing course—eff. fall 16)

180B. Introduction to Research in Textiles (2)
Laboratory—6 hours. Prerequisite: senior standing with textile-related major, and consent of instructor. Senior thesis on independent problems. Research begun in course 180A will be continued and completed in course 180B. (Deferred grading only, pending completion of sequence.) GE credit: SocSci | SS, WE—F, W, S. (F, W, S.) Fangue (change in existing course—eff. fall 16)

Veterinary Medicine: Preventive Veterinary Medicine

New and changed courses in Veterinary Medicine: Preventive Veterinary Medicine (MPM)

Graduate
212. Concepts and Methods in Infectious Disease Surveillance and Control (3)
Lecture—2 hours; discussion/lab/oratory—1 hour. Prerequisite: consent of instructor. Basic and advanced level of conceptual and methodological foundations in infectious disease epidemiology necessary for veterinary or human veterinary programs for detection, prevention, and control of infectious diseases in animal populations. —W. (W.) Lopez (new course—eff. fall 16)

Wildlife, Fish, and Conservation Biology

New and changed courses in Wildlife, Fish, and Conservation Biology (WFC)

Upper Division
122. Population Dynamics and Estimation (4)
Lecture—3 hours; laboratory—3 hours. Prerequisite: Biological Sciences 2A-2C, Mathematics 16A and 16B; and Statistics 13 or the equivalent; an upper division course in ecology. Description of bird, mammal and fish population dynamics, modeling philosophy, techniques for estimation of animal abundance (e.g., mark-recapture, change-in-ratio, etc.), mathematical models of populations (e.g., Leslie matrix, logistic, dynamic pool, stock-recruitment); case histories. —S. (S.) Botsford (change in existing course—eff. winter 17)

130. Physiological Ecology of Wildlife (4)
Lecture—3 hours; discussion—1 hour. Prerequisite: Biological Sciences 2A-2C, Evolution and Ecology 101 or Environmental Science and Policy 100 or equivalent course, can be taken concurrently. Priniciples of physiological ecology, emphasizing vertebrates. Ecological, evolutionary, and behavioral perspectives on physiological mechanisms used by animals to adapt to their environment, including consideration of climate-change and other threats to biodiversity. Tropical, temperate, and polar ecosystems are highlighted. GE credit: SciEng | SE—W. (W.) Fangue (change in existing course—eff. winter 17)

134. Herpetology (3)
Lecture—2 hours; term paper. Prerequisite: Biological Sciences 2A, 2B, 2C; upper division ecology course recommended. Evolution and ecology of the world’s diverse reptiles and amphibians. Emphasis on adaptations to environments, species interactions, management, and conservation. Offered in alternate years. —W. Todd (change in existing course—eff. winter 17)

134L. Herpetology Laboratory (3)
Laboratory—6 hours. Prerequisite: course 134 [may be taken concurrently] and consent of instructor. Diagnostic characteristics and functional attributes of amphibians and reptiles, emphasizing ecological, biogeographic and phylogenetic patterns. Field
experience with common species of reptiles and amphibians in the Davis area. Offered in alternate years. — W. Todd
(change in existing course—eff. winter 17)

136. Ecology of Waterfowl and Game Birds (4)
Lecture—3 hours; laboratory—3 hours; fieldwork—1 hour. Prerequisite: course 111, course 111L (strongly recommended) or consent of instructor. Detailed examination of distribution, behavior, population dynamics, and management of waterfowl and upland game birds. Offered in alternate years. — W. Eadie
(change in existing course—eff. winter 17)

141. Behavioral Ecology (4)
Lecture—3 hours; film viewing—1 hour. Prerequisite: Biological Sciences 2A-2C; Evolution and Ecology 101 or Environmental Science and Policy 100 or equivalent course (can be taken concurrently). Basic theories underlying the functional and evolutionary significance of behavior, and the role of ecological constraints. Supporting empirical evidence taken mainly from studies of wild vertebrates. Offered in alternate years. GE credit: SciEng | SE.—(W.) Caro
(change in existing course—eff. winter 17)

152. Ecology of Human—Wildlife Conflicts (3)
Lecture—3 hours. Prerequisite: Biological Sciences 2B or equivalent. Ecological approaches to managing wild vertebrates that come into conflict with agriculture, public health, or the conservation of biodiversity. Offered in alternate years. — W. Van Vuren
(change in existing course—eff. winter 17)

154. Conservation Biology (4)
Lecture—3 hours; term paper. Prerequisite: Biological Sciences 2A-2C; Evolution and Ecology 101 or Environmental Science and Policy 100 or equivalent course (can be taken concurrently). Introduction to conservation biology and background to the biological issues and controversies surrounding loss of species and habitats. Review of species’ recovery plan. GE credit: SciEng | SE, WE.—F. (F.) Todd
(change in existing course—eff. winter 17)
Policies & Requirements Addendum

THE MINOR

Change to Minor section in the Academic Information chapter.

College of Letters and Science

With the exception of interdisciplinary minors approved by the College Executive Committee, students in the College of Letters and Science may not complete a minor offered by the department or program in charge of the student's major. You can elect only one minor in a subject area.

No more than one course applied to the satisfaction of requirements in the major program shall be accepted in satisfaction of the requirements of a minor. No course used to satisfy the requirements of one minor shall be applied toward any other minor.

Students wishing to pursue a minor offered by the College of Letters and Science, must have completed at least one upper division course toward the minor with a GPA of 2.00 or higher to be eligible to declare that minor.