

# New special topics courses for Spring 2009

## BIOL 496 (1 unit) Genetics and Evolution Activity

1400-1530, Tuesday, AH-1112, Bohonak, AJ

Prerequisites: concurrent enrollment in Bio 496

Weekly activity section for Biology 352, covering topics in Mendelian genetics, population genetics and Evolutionary Biology.

## BIOL 596 (2 units) Classics of Biology

1100-1250, Friday, LS-363, Rohwer, F

Prerequisites: instructor permission. Restricted to graduate students and Biology majors

Classics by Darwin, Dawkins, Lovelock, and Steinbeck will be read and discussed from the biologist's point-of-view. This historical approach will be used to understand the central tenets of modern biology, evolution, natural history, and earth systems science.

## BIOL 596 (4 units) Marine Larval Ecology 2

0930-1045, Tuesday, Thursday, LS-235, Hentschel, BT

Lab, ARR

Prerequisites: Marine Larval Ecology 1, and instructor permission.

Biology and ecology of marine invertebrate larvae, including culture techniques for testing ecological consequences of environmental variability (especially food variability) during larval development. Completing a small-group research project and communicating results in a variety of scientific formats will be emphasized.

## BIOL 596 (3 units) Terrestrial Ecosystems & Climate Change

1230-1345, Tuesday, Thursday, LS-132, Lai, C

Prerequisites: Biology 201A, 201B, 354

Principles of ecosystem ecology, examining factors that control fluxes and stocks of elements (carbon, water and nutrients) within terrestrial ecosystems. Examples of ecosystem response and feedbacks to climate change will be given using Californian ecosystems where possible.

## BIOL 596 (2 units) Terrestrial Ecosystems & Climate Change Lab

1400-1540, Thursday, LS-235, Lai, C

Prerequisites: Biology 291, credit or concurrent enrollment in Terrestrial Ecosystems & Climate Change

Ecological methods used in ecosystem and climate change science, including chemical analysis (of stable isotopes and elements) and meteorological measurements. Modeling, data interpretation, and presentations emphasized.

## BIOL 596 (3 units) International Experience: Sustainability of Coastal Ecosystems

1200-1350, Wednesday, SS-2649, Oechel, WC

Activity, ARR

Prerequisites: Biology 354 and instructor permission.

Integrated ecological concepts and field research, focusing on the interactions of land, sea, and atmosphere systems and human impacts. Topics include global change issues, soil nutrient and vegetation analyses, benthic marine ecology, land use changes, endangered species ecology, and toxicology. NOTE: International travel and extra fees required.

## BIOL 596 (2 units) Electron Microscopy

1300-1450, Wednesday, LS-132, Barlow, S

Prerequisites: Biology 201B, Physics 180B

Theoretical basis of operation of advanced transmission and scanning electron microscopes, including sample preparation, imaging theory, image analysis, and data interpretation.

	Bio. UD electives	Lab elective	Emph. Bioeng.	Emph. CMB	Emph. Ecology	Emph. Evol. Syst.	Emph Mar. Bio.	Emph. Zoology	Micro. UD electives
Gen. Activity	X								
Classics Biology	X								
Mar. Larv. Ecol. 2	X	X			X		X	X	
Terr. Ecos. Cl. Ch.	X				X				
Terr. Ecos. Lab	X	X			X				
S Coast. Ecos.	X				X				
Electr. Microsc.	X			X					X