ENVIRONMENTAL SCIENCES (ENVS)

ENVS 105 F Environmental Biology **3 Units**
54 hours lecture per term. This course is for non-science majors and introduces the student to the principles of organismal biology, framed in the context of Earth's natural environments. The course examines the interactive relationships between the environment and biological phenomena on all levels. In this exposé, the course explores Earth's environmental systems including: global climate system, atmospheric system, aquatic systems, and terrestrial and aquatic ecosystems. The course highlights life's influence on these systems in terms of core biological phenomena including: molecular biology, cellular biology, cellular respiration, photosynthesis, genetics, ecology, evolution, and biodiversity. The course analyzes how both robust and delicate biological systems adjust to a variety of human influences to produce complex environmental transformations. The course emphasizes the fundamental utility of reason and empiricism in scientific discovery and understanding. (Degree Credit) (CSU) (UC) AA GE, CSU GE, IGETC, Cal-GETC

ENVS 105LF Environmental Biology Lab **1 Unit**
Advisory: Concurrent enrollment or completion of ENVS 105 F
9 hours lecture and 27 hours lab or field study per term. This course reveals core biological principles framed in lab and field investigations. Exercises focus on the interactive relationships between biological and physical phenomena on all levels (molecular, cellular, organismal, and ecological). Lab investigations promote the skills of objective experimental design, systematic experimental execution, and accurate results analysis. Field investigations strengthen students' powers of observation in the natural world. Skill development includes making thorough empirical observations, situational awareness of the interactive dynamics of living and non-living components in natural settings, and becoming knowledgeable of local wild species. The course emphasizes the fundamental utility of reason and empiricism in scientific discovery and understanding. Some fees may be required for parking and entrance fees at field trip locations. (Degree Credit) (CSU) (UC) CSU GE, IGETC, Cal-GETC

ENVS 140 F Introduction to the Natural History of Birds (formerly Birds of Southern California) **1 Unit**
18 hours lecture per term. This course is a field-oriented course designed to introduce wildlife enthusiasts to the remarkable diversity of birds in Southern California. Students will learn how to identify birds using visual, auditory, and habitat clues in the field. Proper use of field guides, binoculars and spotting scopes, and birding ethics will be emphasized. Although the primary emphasis of this course is placed on bird identification, the ecological context for each species also will be treated, including: ecological niche, life history patterns, migratory patterns, and special adaptations. Field trips are required and may include day trips and/or overnight camping trips. (Degree Credit) (CSU)

ENVS 141 F Desert Natural History **1 Unit**
18 hours lecture per term. This course applies ecological principles to investigate desert environments. Activities include lecture on ecological principles and field study in selected California desert ecosystems. Lectures will provide an overview of field natural history concepts, including identification of plants and animals, adaptations to arid environments and ecological interrelationships. Field trips are required and will take place during scheduled class times. Fees may be required to cover camping and site entrance fees. (Degree Credit) (CSU)

ENVS 142 F Geology and Marine Biology of the Channel Islands **2 Units**
36 hours lecture per term. This course involves lecture and field study of geological and marine biological processes and features in the Channel Islands region of Southern California. Lectures will examine how to recognize key geologic landforms and marine habitats in the field. Particular attention will be focused on the relationship between geology and the marine life. Students are trained in various field study techniques and the use of scientific instruments. Field trips are required. An additional fee will be required to cover parking, entrance fees, transportation to island, camping, and site guide services. (Degree Credit) (CSU)

ENVS 196 F Regional Field Studies: Environmental Sciences **1 or 2 Units**
18-36 hours lecture per term. Classes are conducted in the short course format, and require participation in fieldwork in a selected biological community in southwestern United States, Mexico, or Costa Rica. Field studies are designed to develop a strong foundation in ecological facts and principles. Emphasis is placed on identifying and studying ecological issues through careful observation, data collection and analysis. Students are trained in various field study techniques and the use of science instruments. Topics include auto-ecological and synecological studies of biological communities, monitoring abiotic factors, field identification of flora and fauna, and human impact on the study area. (Degree Credit) (CSU)