

# NATURAL HISTORY, DEPARTMENT AWARD (D)

## Overview

The Natural History Departmental Award recognizes achievement by students interested in careers in natural history interpretation, freshwater and marine fisheries, forestry, environmental monitoring and wildlife management. The curriculum for the Natural History Departmental Award is individually designed with the student's career goals, interests and talents in mind. The courses are selected in consultation with Faculty Adviser for Natural History. The Faculty Adviser will then submit this program of study to the Biological Sciences Department for review and approval.

## Requirements

Complete all department requirements with a "C" or better in each course.

Code	Title	Units
<b>Department Requirements</b>		
BIOL 110 or BIOL 120 or BIOL 140	Natural Science Natural History Principles of Biology	3-4
BIOL 112 or BIOL 150	Evolution and Adaptation Biodiversity	3
BIOL 122	Ecology	3
BIOL 123	Ecology Laboratory	1
BIOL 144 or EARTH 141/ GEOG 101	Biogeography Physical Geography	3
BOT 121	Plant Diversity <sup>1</sup>	4
ZOOL 122	Animal Diversity <sup>2</sup>	3
Natural History Electives <sup>3</sup>		9
<b>Total Units</b>		<b>29.00-30.00</b>

<sup>1</sup> BIOL 101 Plant Biology may substitute for BOT 121 Plant Diversity

<sup>2</sup> ZOOL 123 Animal Diversity Laboratory is recommended.

<sup>3</sup> Students may choose courses from the areas of Anthropology, Biology, Bio-Medical Sciences, Botany, Chemistry, Geological Sciences, Mathematics, Physics and Zoology. The 9 units of Natural History Electives must be selected in consultation with the Natural History Faculty Advisor and approved by the Biological Sciences Department, are required to complete the major field requirements.

## Learning Outcomes

1. Compare, contrast and illustrate the life histories of a wide variety of life forms representing the diversity of life.
2. Examine the techniques for organizing biodiversity through nomenclature, taxonomy, systematics and biological and ecological hierarchies.
3. Evaluate the various fundamental ecological principles, from populations to communities and ecosystems, that determine the geographical distribution of life on Earth.

4. Describe fundamental metabolic pathways, explain bioenergetics, and relate the interdependence of these pathways within an organism and between an organism and its environment.
5. Collect data to test hypotheses using basic methods, instrumentation and quantitative analytical skills used to conduct biological research and analyze, graphically present, and interpret these data
6. Produce original research reports and review papers in a standard scientific format based on laboratory, field experiments and literature searches that include critical quantitative and qualitative evaluation of data to effectively communicate results, interpretations and concepts.