COURSE OUTLINE : BIOL 146
D Credit – Degree Applicable
COURSE ID 005093
Cyclical Review: October 2021

COURSE DISCIPLINE : BIOL

COURSE NUMBER : 146

COURSE TITLE (FULL) : Marine Mammals

COURSE TITLE (SHORT) : Marine Mammals

ACADEMIC SENATE DISCIPLINE: Biological Science

CATALOG DESCRIPTION

BIOL146 is an introductory survey course covering the identification, classification, ecology, anatomy, physiology and behavior of marine mammals. Course study emphasizes the natural history and conservation of local marine mammals as well as representative groups from around the world.

Total Lecture Units:1.50

Total Laboratory Units: 0.50

Total Course Units: 2.00

Total Lecture Hours:27.00

Total Laboratory Hours: 27.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Total Out-of-Class Hours: 54.00

Prerequisite: None.

GLENDALE COMMUNITY COLLEGE

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1				N/A	Yes

EXIT STANDARDS

1 Identify characteristics of each family of marine mammals;
2 summarize the evolutionary history of each major group of marine mammals;
3 explain the anatomical specializations that characterize the major groups of marine mammals;
4 explain the physiological adaptations that allow mammals to live in the sea, including diving and thermoregulation;
5 describe unique aspects of marine mammal behavior (especially feeding and reproduction) related to their lives in the marine environment;
6 describe the important ecological roles of marine mammals in the broader ecosystem;
7 describe the history of marine mammal exploitation and current conservation challenges.

STUDENT LEARNING OUTCOMES

1 Identify characteristics and give examples of each family of marine mammals.
2 Explain the anatomical and physiological specializations that characterize the major groups of marine mammals.

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Introduction to the Marine Environment • Basic oceanography • Primary productivity • Challenges for mammals • Local conditions	5	5	10
2	Marine Mammal Classification and Evolutionary History • Pinnipeds • Cetaceans • Sirenians and others • Field identification of local species	5	5	10
3	Marine Mammal Anatomy • Skeletal/muscular system • Integumentary system • Respiratory system • Digestive system • Excretory system • Reproductive system	5	5	10

4	Marine Mammal Physiology • Special senses • Diving • Thermoregulation	5	5	10
5	Marine Mammal Behavior • Dietary habits and foraging behavior • Reproductive strategies and behavior	5	5	10
6	Exploitation and Conservation • History of exploitation and uses • Current conservation challenges	2	2	4
				54

OUT OF CLASS ASSIGNMENTS

1 Prepare a field notebook detailing observations made;
2 Read primary literature publications and prepare an oral presentation;
3 Review field guides to identify and classify mammals observed.

METHODS OF EVALUATION

1 Exams
2 Field notebook
3 Oral presentation

METHODS OF INSTRUCTION

- [x] Lecture
- [x] Laboratory
- [ ] Studio
- [x] Discussion
- [x] Multimedia
- [ ] Tutorial
- [ ] Independent Study
- [x] Collaboratory Learning
- [x] Demonstration
- [x] Field Activities (Trips)
- [ ] Guest Speakers
- [x] Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	IBSN	Date
Field Guide to Marine Mammals of the Pacific Coast		University of California Press		Print	Allen, S.	ISBN: 978-0520265455	2011