MRSC A125: FIELD STUDIES IN GRAY WHALE ECOLOGY

Item	Value
Curriculum Committee Approval Date	10/05/2022
Top Code	040100 - Biology, General
Units	1 Total Units
Hours	36 Total Hours (Lecture Hours 9; Lab Hours 27)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Though Gray Whale populations are not endangered, there are still many issues that involve these magnificent whales. This course highlights advanced topics regarding gray whale biology, distribution, ecology, as well as topics regarding human interactions and their current status. The course consists of a lecture component and field excursions that provides an opportunity to view these whales in the wild. The course may also be offered as a study abroad class that includes a multi-day field excursion that provides an opportunity to view these whales in close proximity in at least one of their calving lagoons in Baja California, Mexico. Field trip required. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Examine factors that influence the life histories of Gray Whales.

Course Objectives

- 1. Compare and contrast human influence on all gray whale populations.
- 2. Identify, discuss, and analyze current natural and anthropogenic issues involving Gray Whales.
- 3. List the physical and biological factors that affect gray whales.
- 4. Understand the evolutionary and ecological differences of gray whales versus other baleen whales.

Lecture Content

Advanced biological topics of Gray Whales Advanced evolutionary understanding of all Gray Whale populations. Historic human/Gray Whale interaction until whale watch era with an in depth study of specific Aboriginal and commercial whaling groups. Modern human/Gray Whale interactions. From whale watch era on to present. Current Studies of Gray Whale Ecology, Population Dynamics, and Natural History. Recent changes in migration patterns between their feeding and breeding/calving areas. Current Events relating to the status of Gray Whales with a focus on issues surrounding their protection, population dynamics, conservation, management, and research.

Lab Content

Gray Whale/Human interaction past and present. Gray Whale symbiotic relationships. Conservation and management of Gray Whales. Natural history and ecology of other marine flora and fauna and scientific understanding of field location.

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

Instructional Techniques

Lecture and discussion, video, field studies, interactive computer demonstrations/animations, guest speakers, and hands-on field experience.

Reading Assignments

Assigned readings: 1 hour per week for 8 weeks.

Writing Assignments

Library Research Assignments: 1 hour per week for 8 weeks.

Out-of-class Assignments

Students are required to keep a journal documenting their learning in class, reading of the text, and field studies. 2.5 hours per week for 8 weeks.

Demonstration of Critical Thinking

Students will critically analyze current research articles and use this information to support their research project and oral presentation.

Required Writing, Problem Solving, Skills Demonstration

Students are required to keep a journal documenting their learning in class, reading of the text, and field studies.

Eligible Disciplines

Biological sciences: Master's degree in any biological science OR bachelor's degree in any biological science AND master's degree in biochemistry, biophysics, or marine science OR the equivalent. Master's degree required. Ecology: Master's degree in ecology or environmental studies OR the equivalent OR see interdisciplinary studies. Master's degree required.

Other Resources

1. Instructor developed materials that may include OER, texts or articles appropriate to the Topic