

BI 007: BIOLOGY OF MAMMALS

Originator

toaguilar

Justification / Rationale

This proposal is taking BI 007 - Biology of Mammals (lecture only) which is a Face-to-Face course and transitioning it into a 100% online offering. It is the only biology course at COD with a separate lecture and lab (BI 007L), where the lab will remain Face-to-Face for the foreseeable future. This course is approved for transfer to the UC's and CSU's and fulfills the general elective for natural science (IGETC).

Effective Term

Fall 2022

Credit Status

Credit - Degree Applicable

Subject

BI - Biology

Course Number

007

Full Course Title

Biology of Mammals

Short Title

BIOLOGY OF MAMMALS

Discipline**Disciplines List**

Biological Sciences

Modality

Face-to-Face

100% Online

Hybrid

Catalog Description

This course covers classification, development, physiology, and regulation of mammals. Additional topics covered include zoogeography, echolocation, domestication, conservation ethics, and diseases and zoonoses. This course is primarily designed for students pursuing careers in science, veterinary medicine, and other fields requiring a strong foundation in biology.

Schedule Description

A course for science majors covering mammals and related topics. Advisory: BI-004 and ENG-001A IGETC: 5B

Lecture Units

3

Lecture Semester Hours

54

Lab Units

0

In-class Hours

54

Out-of-class Hours

108

Total Course Units

3

Total Semester Hours

162

Prerequisite Course(s)

Advisory: BI 004 & ENG 001A

Required Text and Other Instructional Materials**Resource Type**

Book

Author

Vaughan, T.A, Ryan, J. M., Czablewski, N.J.

Title

Mammalogy

Edition

6th

City

Burlington, MA

Publisher

Jones and Bartlett Publishers

Year

2015

College Level

Yes

ISBN #

978-1284032093

For Text greater than five years old, list rationale:

Due to the nature of the subject, the material changes little over time and this is the most recent publication of this textbook. There are only two textbooks published that cover this material.

Class Size Maximum

28

Entrance Skills

Demonstrate an understanding of the fundamental form and function of organismal systems.

Requisite Course Objectives

BI 004-Identify and explain basic anatomical and physiological characteristics of life systems.

Entrance Skills

Demonstrate an understanding of basic biological concepts.

Requisite Course Objectives

BI 004-Demonstrate an understanding of the concepts and principles of basic biology.

Entrance Skills

Demonstrate the ability to select, develop and organize ideas in a structured format.

Requisite Course Objectives

ENG 001A-Develop ideas coherently in writing through the drafting process.

ENG 001A-Write thesis statements, topic sentences, and ideas in an organized way in essays.

Course Content

1. The diversity within the different orders of mammals.
2. How reproduction and reproductive cycles occur and differs among mammals.
3. Distribution of mammals (zoogeography) based on dispersal, evolution, climate, and the island syndrome.
4. Anatomy and physiology of mammals.
5. Echolocation in mammals such as bats and whales and dolphins.
6. Behavior of mammals including activity, foraging, shelter-building, communication, defensive, mating, parental care, and social.
7. Mammalian conservation and domestication.
8. Mammalian diseases and zoonoses.

Course Objectives

	Objectives
Objective 1	Describe various mammalian classifications and their phylogenetic relationships.
Objective 2	Explain Darwinian evolution including the origins of Darwinian evolution.
Objective 3	List and describe the signs of evolution including zoogeography, the fossil record, comparative anatomy, comparative embryology, and molecular biology.
Objective 4	Evaluate the adaptive nature of organismal systems in various environments and understand the ecological role of several taxons of mammals.
Objective 5	Explain the physiology of mammals and how homeostasis is maintained.
Objective 6	Describe the body systems, anatomy, and functional physiology of several taxons of mammals.

Student Learning Outcomes

	Upon satisfactory completion of this course, students will be able to:
Outcome 1	Describe key anatomical and physiological characteristics of mammals down to their representative genera.
Outcome 2	Explain the relationship between structure and function at the cellular, organ, systemic, and organismal levels.
Outcome 3	Evaluate the ecological relationship between mammals and their environments.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Lecture	PowerPoint presentation with Audio lecture recorded over presentation, videos, research papers
Discussion	Weekly discussion questions based on the lecture material covered during that week.
Activity	No activities for online, face-to-face only

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Term or research papers	Short assignments based on the material covered in lecture.	Out of Class Only
Tests/Quizzes/Examinations	Multiple exams with multiple choice, matching, and true/false questions.	Out of Class Only
Presentations/student demonstration observations	No presentations/student demonstration, face-to-face only	Out of Class Only

Assignments

Other In-class Assignments

1. Lecture quizzes and exams.
2. Student presentations.

Other Out-of-class Assignments

1. Reading assignments in preparation for lecture including textbook and journal articles.
2. Researching organisms and writing report.

Grade Methods

Letter Grade Only

Distance Education Checklist

Include the percentage of online and on-campus instruction you anticipate.

Instructional Materials and Resources

If you use any other technologies in addition to the college LMS, what other technologies will you use and how are you ensuring student data security?

Will restrict technologies to the college LMS.

If used, explain how specific materials and resources outside the LMS will be used to enhance student learning.

Will restrict technologies to the college LMS.

Effective Student/Faculty Contact

Which of the following methods of regular, timely, and effective student/faculty contact will be used in this course?

Within Course Management System:

Discussion forums with substantive instructor participation
Online quizzes and examinations
Private messages
Regular virtual office hours
Timely feedback and return of student work as specified in the syllabus
Weekly announcements

External to Course Management System:

Direct e-mail
Posted audio/video (including YouTube, 3cm mediasolutions, etc.)

Briefly discuss how the selected strategies above will be used to maintain Regular Effective Contact in the course.

Currently, daily announcements are posted to stay in contact with students so they are aware of what is occurring in the course, students are contacted through email and reply to their emails in a timely manner (within 24 hours if not sooner), weekly discussion questions are posted to allow for me to interact with the students while allowing the students to interact with each other; and in the future, students will have a chat room in which they can interact with each other.

If interacting with students outside the LMS, explain how additional interactions with students outside the LMS will enhance student learning.

Will not be interacting with students outside of the LMS with the exception of COD email outside of CANVAS.

Other Information

Provide any other relevant information that will help the Curriculum Committee assess the viability of offering this course in an online or hybrid modality.

Biology of Mammals is the only biology course with a split lecture and lab, with lab being a separate course (BI 007L). This was done with the intent of offering the lecture portion online while keeping lab in person for now. The course is transferable to the UC's and CSU's as a natural science general elective (IGETC).

Comparable Transfer Course Information**University System**

CSU

Campus

CSU San Bernardino

Course Number

BIOL 2020

Course Title

Principles of Biology II

Catalog Year

2021-22

Rationale

Biology of Mammals will cover the same material as Principles of Biology II (organisms, ecology, and evolution) with an emphasis on mammals.

University System

UC

Campus

UC Riverside

Course Number

BIOL 005C

Course Title

Introduction to Evolution and Ecology

Catalog Year

2021-22

Rationale

Covers evolution and ecology of mammals.

COD GE

C1 - Natural Sciences

CSU GE

B2 - Life Science

IGETC GE

5B - Biological Science

MIS Course Data**CIP Code**

26.0701 - Zoology/Animal Biology.

TOP Code

040700 - Zoology, General

SAM Code

E - Non-Occupational

Basic Skills Status

Not Basic Skills

Prior College Level

Not applicable

Cooperative Work Experience

Not a Coop Course

Course Classification Status

Credit Course

Approved Special Class

Not special class

Noncredit Category

Not Applicable, Credit Course

Funding Agency Category

Not Applicable

Program Status

Program Applicable

Transfer Status

Transferable to both UC and CSU

General Education Status

Y = Not applicable

Support Course Status

N = Course is not a support course

Allow Audit

No

Repeatability

No

Materials Fee

No

Additional Fees?

No

Approvals**Curriculum Committee Approval Date**

11/02/2021

Academic Senate Approval Date

11/11/2021

Board of Trustees Approval Date

12/17/2021

Chancellor's Office Approval Date

01/13/2022

Course Control Number

CCC000559806

Programs referencing this course

Child and Adolescent Development AA-T Degree (<http://catalog.collegeofthedesert.eduundefined/?key=194>)
Liberal Arts: Math and Science AA Degree (<http://catalog.collegeofthedesert.eduundefined/?key=29>)