Glendale College

Course Outline of Record Report

Course ID 010635

Revision - November 2025

BIOL124 : Conservation Biology

General Information

Author:	• Karoline Rostamiani
Attachments:	DE Addendum_BIOL_124 COR_11:15:2023 CoDE_11:28:2023.pdf
Course Code (CB01) :	BIOL124
Course Title (CB02) :	Conservation Biology
Department:	BIOL
Proposal Start:	Fall 2026
TOP Code (CB03) :	(0401.00) Biology, General
CIP Code:	(26.0101) Biology/Biological Sciences, General.
SAM Code (CB09) :	E - Non-Occupational
Distance Education Approved:	Yes
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000642168
Curriculum Committee Approval Date:	11/12/2025
Board of Trustees Approval Date:	12/19/2023
Last Cyclical Review Date:	10/25/2023
Course Description and Course Note:	BIOL 124 is an introductory course that covers the biological principles involved in understanding and analyzing environmental problems and exploring scientifically sound conservation techniques. Students are introduced to the value of biological diversity and the impact of human activity on species and ecosystems. Topics covered include the major threats to biodiversity (habitat destruction and fragmentation, pollution and climate change, overharvesting and the spread of invasive species) as well as practical approaches designed to mitigate biodiversity loss and ecosystem degradation, including urban conservation issues. This course places emphasis on scientific processes and methodology and the application of science to conservation issues. Field trips and/or a semester project may be required.
Justification:	Content Change
Academic Career:	• Credit
Mode of Delivery:	No value
Author:	No value
Course Family:	No value

Academic Senate Discipline

Primary Discipline:	• Biological Sciences
Alternate Discipline:	• Ecology

Alternate Discipline: No value

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

☐ Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

Not applicable.

Grading Basis

- Grade with Pass / No-Pass Option

Course Support Course Status (CB26)

Course is not a support course

General Education and C-ID

General Education Status (CB25)

Not Applicable

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

GCC General Education Requirements	Area	Status	Approval Date	Comparable Course
Area 5: Natural Sciences	Natural Sciences	Approved	09/02/2025	No Comparable Course defined.

Units and Hours

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	108
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Laboratory Hours	0	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	54
Laboratory	0
Studio	0
Total	54
Course Out-of-Class Hours	
Lecture	108
Laboratory	0
Studio	0
Total	108

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Prerequisites, Corequisites, Recommended Corequisites, and Recommended Preparation

Advisory

ENGLC1000 - Academic Reading and Writing

Objectives

- Write timed, in-class essays exhibiting acceptable college-level control of mechanics, organization, development, and coherence.
- Integrate the ideas of others through paraphrasing, summarizing, and quoting without plagiarism.
- Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation.

OR

Advisory

ENGLC1000E - Academic Reading and Writing

Objectives

- Write timed, in-class essays exhibiting acceptable college-level control of mechanics, organization, development, and coherence.
- Integrate the ideas of others through paraphrasing, summarizing, and quoting without plagiarism.
- Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation.

OR

Advisory

ENGLC1000H - Academic Reading and Writing - Honors

Objectives

- Write timed, in-class essays exhibiting acceptable college-level control of mechanics, organization, development, and coherence.
- Integrate the ideas of others through paraphrasing, summarizing, and quoting without plagiarism.
- Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation.

Entry Standards

Entry Standards	Description
No value	No value

Course Limitations

Cross Listed or Equivalent Course	Description
No value	No value

Requisite Validation

Upload Statistical Validation and/or other documents (if necessary)

No Value

Specifications

Methods of Instruction

Methods of Instruction	Lecture
Methods of Instruction	Discussion
Methods of Instruction	Collaborative Learning

Methods of Instruction	Multimedia
Methods of Instruction	Demonstrations

Out of Class Assignments

- Chapter quizzes (included with the ebook)
- Homework exercises (e.g. analyze data to compare and conserve spider communities)
- From free teaching modules developed by the Network of Conservation Educators and Practitioners (NCEP), at the American Museum of Natural History
- Urban conservation project using iNaturalist to document biodiversity in the student's own neighborhood, to provide hands-on practice with the process of scientific observation, hypothesis testing, and the value of citizen science
- Preparation of student presentations to relate the course material to current events, and to gather and interpret scientific information

Methods of Evaluation	Description of Activity/Interaction
Exam/Quiz/Test	Quizzes and exams designed to assess the student's knowledge and comprehension of concepts such as the range of biodiversity on Earth, the ecological impacts of biodiversity conservation and loss, and human impacts on species extinction, genetic variation, and ecosystem function
Activity (answering journal prompt, group activity)	Written responses to prompts regarding how conservation biologists apply various experimental methods to generate data and form conclusions
Exam/Quiz/Test	Exams
Presentation (group or individual)	Students will be evaluated on a capstone presentation covering a current conservation biology topic and be evaluated based on their ability to relate the course material to current events and to interpret and present scientific information. In doing so, they will appraise practical approaches to prevent species' extinction, maintain genetic diversity, protect and restore biological communities and associated ecosystem function

Textbook Rationale

Newer updates of the books are not available.

Textbooks

Author	Title	Publisher	Date	ISBN
A.A. Sher	An Introduction to Conservation Biology, 3rd edition.	Oxford University Press/Sinauer Associates	2022	9780197559079

E.O. Wilson	Half Earth; our planet's fight for life.	Liveright Publishing Corporation	2016	9781631492525
E. Kolbert	The Sixth Extinction; an unnatural history.	Picador	2014	9781250062185

Other Instructional Materials (i.e. OER, handouts)

Description	Free online resources for ecology classes.
Author	The American Museum of Natural History
Citation	No value
Online Resource(s)	https://www.amnh.org/learn-teach/curriculum-collections/ncep-educator-resources

Learning Outcomes

Course Objectives

Define the various levels of biodiversity and the importance of each.

Distinguish between direct and indirect use values of biodiversity.

Describe the major threats to global biodiversity based on human activity.

Describe the risk factors for species extinction.

Compare various approaches for prioritizing and protecting biodiversity.

Describe the costs and benefits of captive breeding in conservation.

Describe the important considerations in the design of protected areas.

Describe the unique challenges and opportunities associated with urban conservation.

Define restoration ecology and rewilding.

Evaluate sustainable development initiatives at local, national and international scales.

Understand scientific methodology and its application to conservation biology

SLOs

Collect and analyze data on local urban biodiversity. Expected Outcome Performance: 70.0

ST DV Liberal Arts: Science and Mathematics Emphasis A.A. Degree	Apply mathematical and scientific ideas to analyze real-world situations.
	Use appropriate technology and/or tools to enhance scientific thinking and understanding.

Describe the major threats to global biodiversity based on human activity. Expected Outcome Performance: 70.0

ST DV Liberal Arts: Science and Mathematics Emphasis A.A. Degree	Read, write, listen to, and speak about mathematical and scientific ideas with understanding.

Compare strategies for the conservation of biodiversity. Expected Outcome Performance: 70.0

ST DV Liberal Arts: Science and Mathematics Emphasis A.A. Degree	Apply mathematical and scientific ideas to analyze real-world situations.
	Read, write, listen to, and speak about mathematical and scientific ideas with understanding.

Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No

Is this proposal submitted in response to learning outcomes assessment data?

No

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

Defining Conservation Biology (3 hours)

- Scientific methodology in conservation
- Value judgment
- Interdisciplinary nature

What is Biodiversity? (6 hours)
- Species diversity
- Genetic diversity
- Ecosystem diversity
- Distribution pattern

Value of Biodiversity (3 hours)
- Economics
- Use values
    - Direct
    - Indirect
- Ethics

Threats to Biodiversity (9 hours)
- Habitat change
    - Destruction
    - Fragmentation
    - Degradation/pollution
- Climate change
- Overexploitation
- Invasive species
- Disease

Extinction Risk (6 hours)
- Defining extinction
- Measuring extinction
- Vulnerability to extinction
- Problems of small population

Conserving Populations and Species (7 hours)
- Population viability analysis
- Metapopulations
- Prioritization
    - Flagship/umbrella species
    - Biodiversity hotspots
- Legal protections
    - National
    - International

Ex-situ Conservation (3 hours)
- Captive breeding
- Seed banks and frozen zoos
- De-extinction

Protected Areas (7 hours)
- Single large vs. several small (SLOSS) debate
- Habitat corridors
- Managing protected areas
- Importance of indigenous/local communities
- Biosphere Reserves
- 30% by 2030 (Convention on Biological Diversity goal)

Conservation Outside Protected Areas (3 hours)
- Private land
- Urban conservation
- Traditional ecological knowledge

Restoration Ecology (3 hours)
- Urban restoration
- Rewilding
- UN decade for Restoration Ecology (2021-2030)

Sustainable development (3 hours)
- Local level
- National level
- International level
    - Convention on Biological Diversity (CBD)
    - Convention on International Trade in Endangered Species (CITES)

- United Nations Framework Convention on Climate Change (UNFCCC)

The Future of Conservation Biology (1 hour)

- Ongoing problems and possible solutions
- The role of conservation biologists

Total Hours: 54

Additional Information

Repeatability

Not Repeatable

Justification (if repeatable was chosen above)

No Value

Is it possible this course will have a material fee?

No

I have contacted my library liaison (https://campusguides.glendale.edu/faculty/liaisons):

Yes

What term(s) will this course be offered?

Fall/Spring

Will any additional resources be needed for this course? (Click all that apply)

- No

If additional resources are needed, add a brief description and cost in the box provided.

No Value