

Glendale College

Course Outline of Record Report

Course ID 010635
Created - October 2023

BIOL124 : Conservation Biology

General Information

| | |
|---|---|
| Author: | <ul style="list-style-type: none"> • Karoline Rostamiani • Kretzmann, Maria |
| Course Code (CB01) : | BIOL124 |
| Course Title (CB02) : | Conservation Biology |
| Department: | BIOL |
| Proposal Start: | Fall 2024 |
| TOP Code (CB03) : | (0401.00) Biology, General |
| CIP Code: | (26.0101) Biology/Biological Sciences, General. |
| SAM Code (CB09) : | Non-Occupational |
| Distance Education Approved: | Yes |
| Will this course be taught asynchronously?: | No |
| Course Control Number (CB00) : | CCC000642168 |
| Curriculum Committee Approval Date: | 10/25/2023 |
| Board of Trustees Approval Date: | 12/19/2023 |
| Last Cyclical Review Date: | 10/25/2023 |
| Course Description and Course Note: | <p>BIOL 124 introduces students to the value of biological diversity and the impact of human activity on species and ecosystems. We will explore the major threats to biodiversity (habitat destruction and fragmentation, pollution and climate change, overharvesting and the spread of invasive species). We will identify practical approaches designed to address biodiversity loss and ecosystem degradation, including urban conservation issues. We will also evaluate the United Nations Convention on Biological Diversity and Ecosystem Restoration goals in the context of sustainable development, while respecting the rights of indigenous people and local communities.</p> |
| Justification: | New Course |
| Academic Career: | <ul style="list-style-type: none"> • Credit |
| Author: | <ul style="list-style-type: none"> • Karoline Rostamiani • Kretzmann, Maria |

Academic Senate Discipline

| | |
|-----------------------|---|
| Primary Discipline: | <ul style="list-style-type: none"> • Biological Sciences |
| Alternate Discipline: | <ul style="list-style-type: none"> • 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

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

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 |

Course Student Hours

| | |
|--|----|
| Course Duration (Weeks) | 18 |
| Hours per unit divisor | 54 |
| Course In-Class (Contact) Hours | |

| | | | | |
|----------------------------------|---|---|--------------|-----|
| Studio Hours | 0 | 0 | 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

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Advisory

ENGL101 - Introduction to College Reading and Composition

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

ESL151 - Reading And Composition V

Objectives

- Read and critically analyze various academic readings.
- Summarize readings.
- Revise writing to eliminate errors in syntax, and grammatical constructions.

Entry Standards

| Entry Standards | Description |
|-----------------|-------------|
| No value | 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)

Methods of Evaluation

Rationale

Exam/Quiz/Test

Quizzes

Activity (answering journal prompt, group activity)

Homework exercises

Exam/Quiz/Test

Exams

Presentation (group or individual)

Student presentations

Textbook Rationale

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 |
| 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 | | | |
| Materials Fee | | | | |
| No value | | | | |

Learning Outcomes and Objectives

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.

SLOs

| | |
|--|-----------------------------------|
| Collect and analyze data on local urban biodiversity. | Expected Outcome Performance: 0.0 |
| Describe the major threats to global biodiversity based on human activity. | Expected Outcome Performance: 0.0 |
| Compare strategies for the conservation of biodiversity. | Expected Outcome Performance: 0.0 |

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)

- Basic science
- 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