Cerro Coso College

Course Outline of Record Report

10/11/2021

BIOLC141 : Environmental Studies Lecture

General Information

Author:	-
Course Code (CB01) :	BIOLC141
Course Title (CB02) :	Environmental Studies Lecture
Department:	Science
Proposal Start:	Fall 2013
TOP Code (CB03) :	(0302.00) Environmental Studies
SAM Code (CB09) :	Non-occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000296631
Curriculum Committee Approval Date:	10/14/2011
Board of Trustees Approval Date:	11/10/2011
External Review Approval Date:	03/28/2011
Course Description:	This course explores environmental science with a focus on the scientific method. It explores human interactions with the environment and their consequences for living and nonliving systems. Topics include ecologic principles, environmental resources and ways of protecting these resources. Critical evaluation of environmental issues and problems is a focus of this course. Not open to students who have completed BIOL 145.
Submission Type:	New Course
Author:	No value

Faculty Minimum Qualifications

Master Discipline Preferred:	• Biological Sciences
Alternate Master Discipline Preferred:	• Biological Sciences
Bachelors or Associates Discipline Preferred:	No value
Additional Bachelors or Associates Discipline Preferred:	No value

Course Development Options

Basic Skills Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade Methods
- Pass/No Pass

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior To College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Course Support Course Status (CB26)

No value

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type	Active
CC Liberal Arts: Mathematics & Science	A.A. Degree Major	Summer 2018 to Fall 2020
CSU General Education (CSU GE Breadth)	Certificate of Achievement	Fall 2020
Intersegmental General Education Transfer Curriculum Certificate of Achievement	Certificate of Achievement	Fall 2020
Liberal Arts: Mathematics & Science Associate in Arts Degree	A.A. Degree Major	Fall 2020
CSU General Education (CSU GE Breadth) (In Development)	Certificate of Achievement	Fall 2021
Intersegmental General Education Transfer Curriculum Certificate of Achievement (In Development)	Certificate of Achievement	Fall 2021

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

No value

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

Cerro Coso General Education Requirements	Categories	Status	Approval Date	Comparable Course

Area 1.1	Natural Science Life Sciences	Approved	No value	No Comparable Course defined.

CSU General Education Certification	Categories	Status	Approval Date	Comparable Course
Area B.2	Scientific Inquiry & Quantitative Reasoning Life Science	Approved	No value	No Comparable Course defined.

Intersegmental General Education Transfer Curriculum	Categories	Status	Approval Date	Comparable Course
Area 5.B	Physical & Biological Sciences Biological Science	Approved	No value	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
Faculty Load	0

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Non-Credit Characteristic

No Value

Course Classification Status (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	3	6
Laboratory Hours	0	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	0

Laboratory	0
Activity	0
Total	54

Course Out-of-Class Hours

Lecture	0
Laboratory	0
Activity	0
Total	108

Time Commitment Notes for Students

No value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours: - Weekly Specialty Hours

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

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

Prerequisite

ENGLC070 - Introductory Composition

Reading - 1 Level Prior to Transfer
Content Review
Students in this course will read college-level scientific texts and other essays and research materials. Students will need to be adept enough in their reading skills to interpret this relatively difficult level of academic language. Reading Level 1 skills ensure that students will have the ability to identify central points, evaluate sources, distinguish fact from opinion, identify bias, and draw inferences.
Writing - 1 Level Prior to Transfer
Content Review
Students in this course will write an 8-10 page paper or several shorter papers. Writing Level 1 skills ensure that students are able to compose a formal research paper from multiple sources including finding, evaluating, organizing, synthesizing college-level and popular reading materials, and to construct a detailed outline and annotated bibliography that projects the structure of the research paper and reflects the extent of their literature search and the relevance of the sources chosen. Writing Level 1 skills prepare students to use their outline to draft a research paper that is properly formatted, written in clear and grammatically-correct prose, and to revise the draft so that their paper is free of both major and minor errors, is properly formatted, and structured and focused for general and academic audiences.

Entrance Skills

Entrance Skills	Description
No value	No value

Limitations on Enrollment

Limitations on Enrollment	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Problem Solving
Rationale	No value
Methods of Instruction	Project-based learning
Rationale	No value
Methods of Instruction	Written work
Rationale	No value
Methods of Instruction	Informational Interviews
Rationale	No value
Methods of Instruction	Lecture
Rationale	No value
Methods of Instruction	Outside reading
Rationale	No value

Methods of Instruction	Presentations (by students)
Rationale	No value

Methods of Instruction	In-class writing
Rationale	No value

Methods of Instruction	Discussion
Rationale	No value

Methods of Instruction	Group Work
Rationale	No value

Methods of Instruction	Debate
Rationale	No value

Methods of Instruction	Case Study
Rationale	No value

Assignments

A. Textbook readings, e.g. Chapter One, perhaps with some questions to answer
B. Research papers, e.g. 8-10 page paper on Governmental Subsidies
C. Asynchronous discussions: in an online forum. E.g. controversial and current topics, like reintroduction of wolves in to Yellowstone

Methods of Evaluation	Rationale
Homework	Homework assignments, questions regarding chapter or a portion of chapter
Research Paper	Research Papers, 8-10 page paper or a couple of shorter ones.
Tests	Quizzes, for example a review quiz in preparation for exams
Tests	Objective Exams, at least one midterm and a final.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN

Cunningham M.A. & Cunningham, W.P. . (2011) The Principals of Environmental Science: Inquiry and Applications. , 5th ed., McGraw-Hill Publishing.

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Examine environmental science with a focus on the scientific method. Expected SLO Performance: 70.0

Social Science PLOs for CSU GE COA	Communicate scientific results by applying the appropriate scientific method, including experimental and empirical methodologies characteristic of science and modern methods and tools used in scientific inquiry through the use of graphs, oral communications, and writings.
Social Science IGETC PLOs	Communicate scientific results by applying the appropriate scientific method, including experimental and empirical methodologies characteristic of science and modern methods and tools used in scientific inquiry through the use of graphs, oral communications, and writings.
Science Liberal Arts: Mathematics & Science AA Degree	Describe the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world.

Define key ecological terms and explain ecological concepts. Expected SLO Performance: 70.0

Explain key interactions of humans with their environment and describe the effects of these interactions. Expected SLO Performance: 70.0

Describe environmental resources and problems that develop with their use. Expected SLO Performance: 70.0

Describe how policy and government work to address environmental problems. Expected SLO Performance: 70.0

Evaluate the importance of various environmental problems, formulate potential solutions, and assess the likelihood of success of each. Expected SLO Performance: 70.0

Science Liberal Arts: Mathematics & Science AA Degree	Apply algebraic, graphical, numerical, and other methods to solve applied problems in the areas of mathematics, natural sciences, computer graphics, and computer animation.

Outline

Course Outline

Lecture ContentProcess of Science Scientific methodHypothesis vs. TheoryUsing Graphs and TablesProbabilityAnalysis of Environmental Science as ScienceCritical ThinkingEcological Principles
Chemistry of LifeMatter and energyPhotosynthesisBiogeochemical cyclesEvolution and Natural SelectionMaintenance of BiodiversitySpeciation and ExtinctionPopulation and Community EcologyDemographyPopulation GrowthSpecies interactionsEcosystemsBiomes- Terrestrial and AquaticBiodiversity Managment and PreservationEcosystem Conservation and Tools for PreservationHuman Ecology
Human PopulationsHuman Population GrowthEcological FootprintDemographic Transition and Family PlanningHuman WasteDisposal MethodsShrinking Waste StreamHazardous and Toxic WasteEnvironmental Health and ToxicologyEnvironmental Resources
Food and AgricultureNutritionAgricultural ResourcesGenetic EngineeringAirAtmosphere and ClimatePollutionClimate ChangeWaterResourcesPollutionEarth ResourcesMiningGeological hazardsEnergyFossil FuelsAlternative SourcesPolicy and Government
Sustainability and Human DevelopmentEnvironmental Economics and SustainabilityInternational TradeUrban DevelopmentEnvironmental Science and PolicyPolicies; Law and TreatiesDispute Resolution
Lecture ContentProcess of Science Scientific methodHypothesis vs. TheoryUsing Graphs and TablesProbabilityAnalysis of Environmental Science as ScienceCritical ThinkingEcological Principles
Chemistry of LifeMatter and energyPhotosynthesisBiogeochemical cyclesEvolution and Natural SelectionMaintenance of BiodiversitySpeciation and ExtinctionPopulation and Community EcologyDemographyPopulation GrowthSpecies interactionsEcosystemsBiomes- Terrestrial and AquaticBiodiversity Managment and PreservationEcosystem Conservation and Tools for PreservationHuman Ecology
Human PopulationsHuman Population GrowthEcological FootprintDemographic Transition and Family PlanningHuman WasteDisposal MethodsShrinking Waste StreamHazardous and Toxic WasteEnvironmental Health and ToxicologyEnvironmental Resources
Food and AgricultureNutritionAgricultural ResourcesGenetic EngineeringAirAtmosphere and ClimatePollutionClimate ChangeWaterResourcesPollutionEarth ResourcesMiningGeological hazardsEnergyFossil FuelsAlternative SourcesPolicy and Government
Sustainability and Human DevelopmentEnvironmental Economics and SustainabilityInternational TradeUrban DevelopmentEnvironmental Science and PolicyPolicies; Law and TreatiesDispute Resolution

Delivery Methods and Distance Education

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings (“Hybrid”) -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

Face 2 Face true
Onlie with some required face to face meeting (Hybrid)
Online course with on ground testing

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section?

Rigor will be the same.

Effective Student-Instructor Contact: Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Moodle Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV -Interactive Video -Other (specify)

discussion forums
email
proctored

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

No Value

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

itv
learning management system
publisher

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

No Value