Cerro Coso College
Course Outline of Record Report
10/07/2021

PHILC131 : Logic and Critical Reasoning

General Information

Author:	• Sarah King • Beshwate, Benjamin • Jones, Matthew
Course Code (CB01) :	PHILC131
Course Title (CB02) :	Logic and Critical Reasoning
Department:	Social Science
Proposal Start:	Fall 2021
TOP Code (CB03) :	(1509.00) Philosophy
SAM Code (CB09) :	Non-occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000569441
Curriculum Committee Approval Date:	05/01/2020
Board of Trustees Approval Date:	06/11/2020
External Review Approval Date:	06/11/2020
Course Description:	This course introduces students to the principles of inductive and deductive inference and their practical applications in everyday situations, such as problem solving and evaluation of arguments. The course examines the uses of language, formal and informal fallacies, syllogistic argument forms, and scientific method. This course also develops the ability to integrate the principles of critical thinking with the techniques of effective written argument.
Submission Type:	Change to Content Updating the out of class assignments in order to meet the IGETC 1B standard.
Author:	No value

Faculty Minimum Qualifications

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

Course Development Options

Basic Skills Status (CB08)	Course Special Class Status (CB13)	Grade Options
Course is not a basic skills course.	Course is not a special class.	• 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: Social & Behavioral Sciences	A.A. Degree Major	Summer 2018 to Fall 2020
CC Liberal Arts: Arts & Humanities	A.A. Degree Major	Summer 2018 to Fall 2020
CSU General Education (CSU GE Breadth) (In Development)	Certificate of Achievement	Fall 2021
History Associate in Arts Degree for Transfer (AA-T)	A.A. Degree for Transfer	Spring 2020 to Spring 2020
History Associate in Arts Degree for Transfer	A.A. Degree for Transfer	Spring 2020
CSU General Education (CSU GE Breadth)	Certificate of Achievement	Fall 2020
Law, Public Policy, and Society Associate in Arts Degree for Transfer	A.A. Degree for Transfer	Fall 2020
Liberal Arts: Social & Behavioral Sciences Associate in Arts Degree	A.A. Degree Major	Fall 2020
Liberal Arts: Arts & Humanities Associate in Arts Degree	A.A. Degree Major	Fall 2020
Liberal Arts: Arts & Humanities Associate in Arts Degree (In Development)	A.A. Degree Major	Spring 2022

Liberal Arts: Social & Behavioral Sciences Associate in Arts Degree (In Development)	A.A. Degree Major	Spring 2022

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

No value

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

CSU General Education Certification	Categories	Status	Approval Date	Comparable Course
Area A.3	English Language Communication & Critical Thinking Critical Thinking	Approved	No value	No Comparable Course defined.

Cerro Coso General Education Requirements	Categories	Status	Approval Date	Comparable Course
Area 3.4	Humanities Philosophy	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)

Funding Agency Category (CB23)

Credit Course.   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	54
Course In-Class (Contact) Hours	
Lecture	54
Laboratory	0
Activity	0
Total	54
Course Out-of-Class Hours	
Lecture	108
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

ENGLC101 - Freshman Composition

Students are expected to read and comprehend college-level texts explaining complex philosophical theories. In addition, they must critically analyze scholarly articles for a research project. Students are also expected to
write papers as well as respond to essay questions on exams. This requires that they write in a clear and organized manner free from errors. The advisory level ensures students have the skills necessary for success in these assignments. This prerequisite is also required for IGETC 1B approval.

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	Discussion
Rationale	Instructor-led discussions are designed to involve students in the learning process by practicing the Socratic method and philosophical discussion in class.

Methods of Instruction	Lecture
Rationale	Lecture is used to introduce new material, review material covered in the textbook, expand on material in the textbook, and present additional ideas and examples to clarify the key concepts of the course.

Methods of Instruction	Debate
Rationale	Debates are designed to reinforce learning and practice critical thinking, such as constructing and evaluating arguments.

Methods of Instruction	Group Work
Rationale	Students work in small groups to practice effective collaboration and communication skills while working on practical philosophical problems.

Assignments

Students are required to submit a total of at least 6,000 words of writing throughout the course of the semester, including at least one MLA-formatted, research paper. Writing topics involve researching controversial issues such as gun control, abortion, foreign intervention, gender roles, drug abuse intervention techniques, etc., in order to construct evidence-based arguments.
Writing should address each one of the main logical topics of the course, whether through written homework (e.g., discussion posts, short papers) or

in-class assignments (e.g., quizzes, exams).
Written assignments should demonstrate critical thinking and analytical skills.

Regular reading assignments are required from the course textbook and/or other course material. Students will have access to a wide range of physical and electronic library materials.
Reading assignments are to be completed before the topic is covered in class.

Methods of Evaluation	Rationale
Final Exam	Multiple-choice quizzes and exams evaluate students on their ability to apply logical concepts. Essay quiz questions, written assignments, and exams are graded on the student's ability to synthesize key concepts and solve appropriate problems as they relate to the logic, including practical application.
Tests	Shorter written assignments—including quizzes or exams—are graded based on the correct application of logical concepts.
Research Paper	A research term paper is graded based on quality of research, the examples used, accuracy of claims, the inclusion of all required components, level of critical thinking, logical validity/cogency of arguments employed, quality of written English, and the inclusion of outside sources, properly cited.
Participation	Oral and virtual presentations are graded on clear communication, logical presentation, and effective and creative use of audiovisual and/or technological components.
Distance Education Description: how outcomes are evaluated	For distance education: a discussion board with guided questions includes examples as well as peer and instructor feedback. Videos are used to provide further visual instruction on philosophical theories. Students will have access to e-books, electronic databases, and streaming video

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Patrick J. Hurley and Lori Watson	A Concise Introduction to Logic	Cengage	2018	
Vaughn, Lewis	The Power of Critical Thinking: Effective Reasoning about Ordinary and Extraordinary Claims	Oxford University Press	2018	

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Demonstrate an understanding of deductive reasoning and competence in some methods of formal logic.　Expected SLO Performance: 70.0

English Liberal Arts: Arts & Humanities AA Degree	Evaluate, create, or perform artistic and cultural constructions.
Business Information Technolog Law, Public Policy, and Society for Transfer	Locate, critically read, and analyze relevant primary and secondary sources.
Social Science PLOs for CSU GE COA	Use clear and precise language to express logical thought.
Social Science Liberal Arts: Social & Behavioral Sciences AA Degree	Identify and apply the Scientific Method used by social scientists to study human behavior.

Identify the relationship between language and logic.　Expected SLO Performance: 70.0

Distinguish fact from opinion and knowledge from belief.　Expected SLO Performance: 70.0

Business Information Technolog Law, Public Policy, and Society for Transfer	Locate, critically read, and analyze relevant primary and secondary sources.

Distinguish between inductive and deductive arguments and use correctly the various forms of each.　Expected SLO Performance: 70.0

Analyze and evaluate increasingly complex arguments from a variety of oral and written sources and examine their assumptions and implications.
Expected SLO Performance: 70.0

Outline

Course Outline

1. Introduction to logic
    a. Distinguishing arguments from non-arguments (e.g.; descriptions and explanations).
        i. Assessment of structure and form of both propositions and arguments.
        ii. Exposing formal and informal fallacies.
    b. Analysis of arguments into reasons and conclusions.
        i. Are reasons relevant? True? Adequate? Clear and unbiased?
        ii. Clarifying meaning:
            1. Ambiguity/Equivocation.
            2. Vagueness.
            3. Bias/Slanting.
            4. Definition.
            5. Connotation/Denotation.
    c. Identification of assumptions and implications.
    d. Distinguishing between inductive and deductive arguments:
        i. Deductive arguments
            1. Translation into logical form:
                a. Categorical propositions
                    i. Venn diagrams
                b. Sentential logic
                    i. Syntax and formation rules
                    ii. Truth-functions and Truth-tables

    iii. Proofs: rules of validity
    iv. Rules of inference
   c. Categorical syllogisms
     i. Square of Opposition
     ii. Existential/Venn Opposition
  ii. Inductive arguments.
    1. Analogies.
    2. Generalizations.
    3. Causation and scientific method.
2. Critical Writing - Composition:
 a. Development of a clear thesis statement.
 b. Support of a thesis with reasons/evidence.
 c. Drawing inferences from a variety of forms (e.g.; statistics; testimony; authority and examples).
 d. Clarification of meaning and avoid unclear and slanted sentences.
 e. Supporting positions using different types of inductive and deductive arguments.
 f. Construction of a progression of substantial compositions that:
  i. Advocate for one's own ideas by providing support for a claim; refuting the position of opponents and avoiding common fallacies.
  ii. Evaluation of the written work of others by assessing structure and content.

Delivery Methods

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 to face
- Online (purely online no face-to-face contact)
- Online with some required face-to-face meetings ("Hybrid")
- iTV – Interactive video = Face to face course with significant required activities in a distance modality

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? Describe the ways in which instructor-student contact and student-student contact will be facilitated in the distance ed environments.

All assignments and SLO assessments in distance education courses (online, hybrid and iTV) of PHIL C131 are the same as those in the on-ground course, except that students in purely online sections will submit all of their assignments virtually, and students in hybrid sections will submit some of their assignments virtually. Instructor evaluation of student work in distance education courses is the same as in the on-ground course, except that evaluation of student work in online and hybrid courses is presented virtually. Instead of onsite lectures, hybrid and online courses will use videos and written lecture notes. Student interaction will take place in online discussion forums.

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 -Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV - Interactive Video -Other

- Discussion Forums
- Message
- Chat/Instant Messaging
- E-mail
- Face-to-face meeting(s)
- Newsgroup/Discussion Board
- Telephone
- iTV - Interactive Video

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?

Standard computer with internet connection

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—Interactive Video only
- Learning management system
- Publisher course with learning management system interface.

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.

Online: 45 students
Onsite: 35 students

Emergency Distance Education Options The course will operate in remote delivery mode when all or part of the college service area is under an officially declared city, county, state, or federal state of emergency, including (check all that apply) - Online including all labs/activity hours - Hybrid with online lecture and onsite lab/activity hours - Correspondence education in high school and prison facilities - None. This course will be cancelled or paused if it cannot be held fully onsite.

- Online including all labs/activity hours
- Hybrid with online lecture and onsite lab/activity hours
- Correspondence education in high school and prison facilities