

# PHIL 0004 - INTRODUCTION TO CRITICAL THINKING

## Catalog Description

Prerequisite: Completion of ENGL 1A with grade of "C" or better  
Hours: 54 lecture

Description: A study of the principles of inductive and deductive inference and their practical applications in everyday situations such as analyzing, criticizing, and advocating ideas, evaluation of arguments, and problem solving. Examines the use of language, formal and informal fallacies, syllogistic argument forms and the scientific method. Develops the ability to integrate principles of critical thinking with the techniques of effective written argument. (C-ID PHIL 110) (CSU, UC)

## Course Student Learning Outcomes

- CSLO #1: Identify and construct inductive arguments and evaluate for strengths and weaknesses.
- CSLO #2: Identify and construct deductive arguments and evaluate for validity using Venn and/or truth-table diagram methods.
- CSLO #3: Identify and explain common informal fallacies.
- CSLO #4: Construct a clear, coherent, and cogently reasoned essay applying the skills of critical thinking.
- CSLO #5: Interpret and explain concepts and perspectives from college level reading that reflect cultural diversity.

## Effective Term

Fall 2022

## Course Type

Credit - Degree-applicable

## Contact Hours

54

## Outside of Class Hours

108

## Total Student Learning Hours

162

## Course Objectives

Students will:

1. Demonstrate an understanding of deductive reasoning and competence in some methods of formal logic.
2. Identify the relationship between language and logic.
3. Distinguish fact from opinion and knowledge from belief.
4. Distinguish between inductive and deductive arguments and use correctly the various forms of each.
5. Analyze and evaluate increasingly complex arguments from a variety of oral and written sources, and examine their assumptions and implications.
6. Construct well organized, sustained written arguments advocating ideas and positions.

7. Write a progression of substantial essays demonstrating an increasingly sophisticated use of structure, coherence and style. Total number of words: at least 6,000.

## General Education Information

- Approved College Associate Degree GE Applicability
  - AA/AS - Comm & Analyt Thinking
  - AA/AS - Literature & Language
  - AA/AS - Reading Skills
- CSU GE Applicability (Recommended-requires CSU approval)
  - CSUGE - A3 Critical Thinking
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)
  - IGETC - 1B Crit Think Eng Comp

## Articulation Information

- CSU Transferable
- UC Transferable

## Methods of Evaluation

- Classroom Discussions
  - Example: Divide students into small groups to determine through discussion whether example hypothesis are falsifiable (i.e., scientific) or non-falsifiable hypothesis. Come back together as a class and evaluate student choices and explanations.
- Essay Examinations
  - Example: Write 2000 word essay analyzing and evaluating the assumptions and inferences in Justice Kennedy's 28-page argument in the United States Supreme Court case, *Obergefell v. Hodges*, 576 U.S. (2015), in which the Court held in a 5–4 decision that the fundamental right to marry is guaranteed to same-sex couples by both the Due Process Clause and the Equal Protection Clause of the Fourteenth Amendment to the United States Constitution.
- Objective Examinations
  - Example: Given the following three cases, use Mill's method of induction to determine which is the most likely the cause of X?  
Case 1: M, Q, S - EVENT X OCCURS Case 2: T, U, M - EVENT X OCCURS Case 3: R, U, S - EVENT X DOES NOT OCCUR A. S B. U C. M D. S
- Problem Solving Examinations
  - Example: You work at a factory that makes board games. Your job is quality control for the cards that go with the games. On this day the rule that the cards must follow is: "If a card has an odd number on one side, then it has a vowel on the other side." (1) Determine which of the following cards (P, 8, E, 9) you must turn over because they are at risk of breaking the rule. (2) Justify your answers by constructing a truth table to explain your decision.
- Skill Demonstrations
  - Example: Students will be given example categorical enthymemes and determine what premise or conclusion results in a valid categorical argument, then using the Venn method will demonstrate that when added to the argument it becomes valid.

## Repeatable

No

## Methods of Instruction

- Lecture/Discussion
- Distance Learning

### Lecture:

1. Instructor will demonstrate during an in-person lecture or through online video skills and methods for how to identify, construct, and evaluate deductive arguments for validity using the Venn diagram and truth-table method. Instructor will monitor small in-person groups or online discussion forums where students practice identifying, constructing, and evaluating deductive arguments using the Venn diagram and truth-table method to test for validity.

### Distance Learning

1. Instructor will demonstrate during an in-person lecture or through online exercises a series of arguments that contain informal fallacies related to inductive arguments (e.g., inductive generalizations, analogies, causal arguments) and review the patterns associated with these fallacies. In small in-person groups or in online discussion forums students will practice informal fallacy recognition by reviewing a variety of inductive arguments and identifying the relevant fallacy and explaining why it is an example of poor reasoning.

## Typical Out of Class Assignments

### Reading Assignments

1. Read the chapter deductive arguments. Translate arguments in natural language into argument forms, such as modus ponens and modus tollens argument patterns.
2. Read the chapter on informal fallacies. Examine arguments and evaluate them in terms of ad hominem, red herring and straw-man fallacies.

## Writing, Problem Solving or Performance

1. Construct a well-organized essay arguing for a position you advocate, using techniques of formal and informal inference.
2. Construct a clear, coherent, and cogently reasoned essay evaluating the evidence, reasons, and arguments made about a contemporary debatable issue.

## Other (Term projects, research papers, portfolios, etc.)

### Required Materials

- Introduction to Logic
  - Author: Copi, Irving M and Carl Cohen
  - Publisher: Pearson
  - Publication Date: 2010
  - Text Edition: 14th
  - Classic Textbook?:
  - OER Link:
  - OER:
- A Concise Introduction to Logic
  - Author: Hurley, Patrick J
  - Publisher: Wadsworth Publishing
  - Publication Date: 2014
  - Text Edition: 12th

- Classic Textbook?:
- OER Link:
- OER:
- The Promise of Happiness
  - Author: Ahmed, Sara
  - Publisher: Duke University Press Books
  - Publication Date: 2010
  - Text Edition: 1st
  - Classic Textbook?:
  - OER Link:
  - OER:
- Critical Thinking
  - Author: Brooke Moore and Richard Parker
  - Publisher: McGraw-Hill
  - Publication Date: 2020
  - Text Edition: 13th
  - Classic Textbook?:
  - OER Link:
  - OER:

**Other materials and-or supplies required of students that contribute to the cost of the course.**