

PHIL-131: INTRODUCTION TO LOGIC AND CRITICAL THINKING

Justification for this inactivation request

Course not offered in 3 years.

Effective Term

Fall 2025

CC Approval

11/01/2024

AS Approval

11/14/2024

BOT Approval

11/21/2024

COCI Approval

03/13/2025

SECTION A - Course Data Elements

CB04 Credit Status

Credit - Degree Applicable

Discipline

Minimum Qualifications	And/Or
Philosophy (Master's Degree)	

Subject Code

PHIL - Philosophy

Course Number

131

Department

Philosophy

Division

Arts and Humanities (ARAH)

Full Course Title

Introduction to Logic and Critical Thinking

Short Title

Intro to Logic & Crit Thinking

CB03 TOP Code

1509.00 - Philosophy

CB08 Basic Skills Status

NBS - Not Basic Skills

CB09 SAM Code

E - Non-Occupational

SECTION B - Course Description

Catalog Course Description

Develops skills in the use of deductive and inductive inferences; propositional and sentential logic; logical fallacies; and various syllogistic arguments for evaluating formal and informal arguments. Includes analytical and argumentative reading and writing exercises.

SECTION C - Conditions on Enrollment

Open Entry/Open Exit

No

Repeatability

Not Repeatable

Grading Options

Letter Grade or Pass/No Pass

Allow Audit

Yes

Requisites

SECTION D - Course Standards

Is this course variable unit?

No

Units

3.00

Lecture Hours

54.00

Outside of Class Hours

108

Total Contact Hours

54

Total Student Hours

162

Distance Education Approval

Is this course offered through Distance Education?

Yes

Online Delivery Methods

DE Modalities	Permanent or Emergency Only?
Entirely Online	Permanent
Hybrid	Permanent

SECTION E - Course Content

Student Learning Outcomes

Upon satisfactory completion of the course, students will be able to:	
1.	Recognize, identify, create and apply various logical structures and elements (and/or lack of them in the form of logical fallacies) for analyzing the logical efficacy of different written arguments and claims.
2.	Demonstrate competent English composition skills on a variety of topics by writing logically cogent disquisitions using the reasoning skills listed above.

Course Objectives

Upon satisfactory completion of the course, students will be able to:	
1.	Demonstrate an understanding of proof method (natural deduction) in sentential logic as well as competence in methods of formal logic.
2.	Identify the relation between language and logic.

3. Distinguish fact from opinion and knowledge from belief.
4. Identify and critique deductive and inductive arguments in contemporary oral and written arguments.
5. Apply deductive and inductive argument in essay form.
6. Construct well organized written arguments advocating ideas and positions using logical tools as a foundation. A minimum of 6,000 words.

Course Content

1. Critical Thinking - Arguments
 - a. Distinguishing arguments from non-arguments
 - b. Breaking-down and analyzing arguments according to reasons and conclusions
 - c. Identifying assumptions and implications
 - d. Distinguishing between deductive and inductive arguments
 - e. Translating deductive arguments into logical form
 - i. Implications of natural deduction
 - f. Constructing categorical propositions with Venn diagrams
 - g. Identifying sentential logic
 - i. Syntax and formation rules
 - ii. Truth-functions and Truth-tables
 1. Rules of Validity for Proofs
 2. Rules of Inference
 - iii. Identifying and creating categorical syllogisms
 1. Square of Opposition
 2. Existential/Venn Opposition
 - iv. Identifying and creating inductive arguments
 1. Analogies
 2. Generalizations
 3. Causation and the scientific method
 - v. Evaluating Arguments
 1. Assessment of structure and form of propositions and arguments
 2. Exposing formal and informal fallacies
 - vi. Critiquing content of arguments
 1. Are the reasons relevant to the thesis statement?
 2. Are the reasons true? Adequate? Clear? Unbiased?
 - a. Clarifying meaning:
 - i. Ambiguity/Equivocation
 - ii. Vagueness
 - iii. Bias/Slanting
 - iv. Definition
 - v. Connotation/Denotation
2. Critical Writing - Composition
 - a. Developing an adequate thesis statement
 - b. Supporting a thesis with logic, reasons, evidence
 - c. Drawing inferences from different sources (examples: statistics, authority, examples, testimony, judicial case rulings, etc.)
 - d. Clarifying meaning and avoiding vague, indefinite and slanted sentences
 - e. Supporting positions using various forms of deductive and inductive arguments
 - f. Constructing a progression of substantial compositions that demonstrate the following:
 - i. Evaluation of works written by others by assessing structure and content
 - ii. Advocation of one's own ideas in written form providing logical and empirical support for the claims and refuting the position of opponents while avoiding logical fallacies

Methods of Instruction

Methods of Instruction

Types	Examples of learning activities
Activity	Students will occasionally solve problems from the textbook in small groups during class.
Discussion	LECTURE/DISCUSSION from textbook chapters.

Lecture	Presentations of Irving Copi's book INTRODUCTION TO LOGIC with problem-solving exercises.
Other	YouTube clips of speeches by contemporary luminaries to be analyzed with respect to their logical efficacy and empirically verifiable information.

Online Adaptation

Types	Examples of learning activities
Activity	
Directed Study	
Discussion	
Group Work	
Individualized Instruction	
Journal	
Lecture	

Instructor-Initiated Online Contact Types

Announcements/Bulletin Boards
 Chat Rooms
 Discussion Boards
 E-mail Communication
 Telephone Conversations
 Video or Teleconferencing

Student-Initiated Online Contact Types

Chat Rooms
 Discussions
 Group Work

Course design is accessible

Yes

Methods of Evaluation

Methods of Evaluation

Types	Examples of classroom assessments
Exams/Tests	3 section tests and a final exam. Section tests will consist of tasks such as the following: Sample One: Translate each of the following into symbolic form. 1.) It is not the case that either Downtown Joe's serves alcohol or the Girl Scouts and the Honor Society serve lemonade. 2.) If Spike Lee writes a movie, then if Denzel Washington stars in it, then Paramount and MGM will compete for it. Sample Two: Indicate the validity or invalidity of each of the following arguments using Truth Tables. Use the long truth table for all even-numbered items and the short truth table for all odd-numbered items. 1.) If Billy the Kid shot the sheriff, but he didn't shoot the deputy, then he's guilty of only one crime. But it's not true that he shot the sheriff but didn't shoot the deputy. Therefore, it's not the case that he's guilty of only one crime. 2.) If the first disjunct of a disjunction is true, the disjunction as a whole is true. Therefore, if both the first and second disjuncts of the disjunction are true, then the disjunction as a whole is true. 3 standardized tests each based on 100 percentage points. Tests will be drawn from the Copi textbook and/or other objective test samples available from past logic tests in the field. The test banks are voluminous. 3 essay exams each worth 100 percentage points. 1 final exam essay worth 200 percentage points. A student may earn a total of 800 percentage points. The final grade will be calculated by dividing the sum of the percentage points by 8 to yield the final percentage. 90 - 100 = A 80 - 89 = B 70 - 79 = C 60 - 69 = D 59 and below = F Final Class Performance – The targeted goal: Overall percentage for the entire class will be 70%. Final Exam - Essay for the Final Exam: Write an in-class essay of 1,200 - 1,500 words analyzing and evaluating the article provided you by the professor. Identify reasoning errors and biased language, then rewrite the essay using good logical form and empirical examples.
Essays/Papers	3 papers containing a minimum of 6,000 words total due by the end of the semester, including the final essay. Sample Essay Assignments: Identify an issue you care about and defend your point of view using logical and empirical evidence to support your claims. Identify a controversial social issue and write an essay defending one point of view, then write a second essay defending the counter view.
Class Participation	Problem-solving exercises similar to those listed in Exams/Tests Section. Students will work in small groups, then after solving the problems, the class as a whole will analyze the problems with instructor.
Homework	Reading the text, completing the exercises in the text and writing papers. Standardized instrument objectively measuring student knowledge.

Assignments

Reading Assignments

Read each chapter in the textbook sequentially keeping abreast of the lecture presentations.

Read all pertinent current material on given topics, which will vary semester to semester. Handouts of and/or links to the most recent magazine articles, academic papers, blogs, disquisitions, etc. will be provided.

Writing Assignments

3 essays containing a minimum of 6,000 words total, typed, double-spaced and handed in on the date instructor advises.

A final exam essay delineated in the section titled "Methods of Evaluation".

SECTION F - Textbooks and Instructional Materials

Material Type

Textbook

Author

Copi, I. and Cohen, C.

Title

Introduction to Logic

Edition/Version

14th

Publisher

Routledge

Year

2016

SECTION G - Diversity, Equity and Inclusivity

Course Codes (Admin Only)

CB00 State ID

CCC000535823

CB10 Cooperative Work Experience Status

N - Is Not Part of a Cooperative Work Experience Education Program

CB11 Course Classification Status

Y - Credit Course

CB13 Special Class Status

N - The Course is Not an Approved Special Class

CB23 Funding Agency Category

Y - Not Applicable (Funding Not Used)

CB24 Program Course Status

Program Applicable

Allow Pass/No Pass

Yes

Only Pass/No Pass

No