PHIL 010: GENERAL LOGIC

Originator
msmith

Justification / Rationale
Adding online modalities.

Effective Term
Fall 2022

Credit Status
Credit - Degree Applicable

Subject
PHIL - Philosophy

Course Number
010

Full Course Title
General Logic

Short Title
GENERAL LOGIC

Discipline

Disciplines List
Philosophy

Modality
Face-to-Face
100% Online

Catalog Description
An introduction to the basics of deductive and inductive logics. Emphasis is placed on the syntax and semantics of elementary deductive logic. Inductive reasoning, the identification of informal fallacies, and the rudiments of the scientific method are also studied.

Schedule Description
General Logic is an introduction to the exact science of reasoning. Advisory: ENG 001A & MATH 060

Lecture Units
3
Lecture Semester Hours
54

Lab Units
0

In-class Hours
54

Out-of-class Hours
108

Total Course Units
3
Total Semester Hours
162

Prerequisite Course(s)
Advisory: ENG 001A & MATH 060

Required Text and Other Instructional Materials

Resource Type
Book

Author
Hurley, Patrick J.

Title
A Concise Introduction to Logic

Edition
11th

Publisher
Wadsworth Publishing

Year
2011

College Level
Yes

Flesch-Kincaid Level
13

ISBN #
978-084003416

Class Size Maximum
45

Course Content

1. The logical functions of natural language
2. The nature of deductive, inductive and abductive inference
3. The structure of an argument
4. The nature of validity, soundness and inductive strength
5. Basic predicate logic
6. Venn diagrams
7. Truth-functional logic
8. Formal and informal fallacies
9. The nature and practical applications of probability
10. Derivations in sentential logic.

Course Objectives

	Objectives
Objective 1	Identify and describe the logical functions of natural language.
Objective 2	Distinguish the various types of definitions from one another in terms of their function, describe the function in each case, and apply this knowledge to specific cases.
Objective 3	Identify and describe the difference between deductive and inductive logic and illustrate this difference by means of specific examples.
Objective 4	Distinguish arguments from non-arguments.
Objective 5	Identify and describe the general structure of an argument as such and give specific examples of how this structure may appear in actual arguments.

Objective 6	Distinguish the form of an argument from its content.
Objective 7	Articulate clearly the distinction between validity and soundness as it applies to actual arguments.
Objective 8	Use Venn Diagrams to depict meanings and determine validity of categorical syllogisms.
Objective 9	Symbolize plain language categorical propositions as well as translate into ordinary English symbolized arguments.
Objective 10	Distinguish between sentential and predicate logic.
Objective 11	Use the techniques of truth-functional logic to determine the validity of appropriate arguments.
Objective 12	Create and apply truth-table analysis to determine validity.
Objective 13	Perform derivations in sentential logic via natural deduction.
Objective 14	Describe the relationship of probability theory and hypothesis testing in applying the scientific method.
Objective 15	Identify the principal formal and informal fallacies.
Objective 16	Identify the principal steps which constitute the scientific method.

Student Learning Outcomes

	Upon satisfactory completion of this course, students will be able to:
Outcome 1	Identify the common fallacies in informal reasoning.
Outcome 2	Distinguish valid arguments from invalid arguments.
Outcome 3	Distinguish inductive arguments from deductive arguments.
Outcome 4	Distinguish weak inductive arguments from strong arguments.
Outcome 5	Construct semantic tableaux for evaluating arguments in propositional logic.
Outcome 6	Recognize and employ valid rules of inference in sentential logic.
Outcome 7	Perform derivations via natural deduction.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Lecture	Delivery of information, interpretation, and analysis of logical concepts and argumentative methods.
Discussion	Building students' comprehension of logical concepts, logical distinctions, and the rules of inference.

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Written homework	Assessment students' initial comprehension of logical concepts, logical distinctions, and the rules of inference	Out of Class Only
Tests/Quizzes/Examinations	Assessment of students' more advanced comprehension of logical concepts, logical distinctions, and the rules of inference	In and Out of Class
Mid-term and final evaluations	Assessment of students' total comprehension of logical concepts, logical distinctions, and the rules of inference	In and Out of Class

Assignments

Other In-class Assignments

a. Attendance of lectures by instructor and occasional guest speakers, including the taking of detailed notes thereon.
b. Viewing of films and slide programs, including the taking of notes thereon.
c. Listening to sound recordings and taking notes thereon.
d. Special reports by students, in panel or singly.
e. Participation in class research projects involving the collection, written or oral reports thereon.
f. Examinations of various types, such as essay and multiple choice.

Other Out-of-class Assignments
a. Readings in the textbook and in recommended supplementary literature.
b. Composition of brief analytical essays.

Grade Methods
Letter Grade Only

Distance Education Checklist

Instructional Materials and Resources

Effective Student/Faculty Contact

Which of the following methods of regular, timely, and effective student/faculty contact will be used in this course?

Within Course Management System:
Chat room/instant messaging
Discussion forums with substantive instructor participation
Online quizzes and examinations
Private messages
Regular virtual office hours
Timely feedback and return of student work as specified in the syllabus
Weekly announcements

External to Course Management System:
Direct e-mail
Synchronous audio/video

Briefly discuss how the selected strategies above will be used to maintain Regular Effective Contact in the course.
The methods listed above are the most successful ways to accomplish regular effective contact in an online learning environment. Announcements, email, regular virtual office hours, chat rooms/instant messaging, etc., insure that online students receive the same information and opportunities to interact with instructors as do students enrolled in non-virtual learning environments.

Other Information

Provide any other relevant information that will help the Curriculum Committee assess the viability of offering this course in an online or hybrid modality.
Synchronous instruction replicates the coherence and immediacy of the in-person classroom.

COD GE
C4.B - Language and Rationality - Communication and Analytical Thinking

CSU GE
A3 - Critical Thinking

MIS Course Data

CIP Code
38.0101 - Philosophy.

TOP Code
150900 - Philosophy

SAM Code
E - Non-Occupational

Basic Skills Status
Not Basic Skills

Prior College Level
Not applicable

Cooperative Work Experience
Not a Coop Course

Course Classification Status
Credit Course

Approved Special Class
Not special class

Noncredit Category
Not Applicable, Credit Course

Program Status
Program Applicable

Transfer Status
Transferable to both UC and CSU

C-ID
PHIL 110

Allow Audit
No

Repeatability
No

Materials Fee
No

Additional Fees?
No

Approvals

Curriculum Committee Approval Date
11/18/2021

Academic Senate Approval Date
12/09/2021

Board of Trustees Approval Date
01/21/2022

Chancellor's Office Approval Date
03/11/2010

Course Control Number
CCC000326054

Programs referencing this course
Philosophy AA-T Degree (http://catalog.collegeofthedesert.eduundefined/?key=17)
Liberal Arts: Arts, Humanities Communication Studies AA Degree (http://catalog.collegeofthedesert.eduundefined/?key=26)
Journalism AA-T Degree (http://catalog.collegeofthedesert.eduundefined/?key=9)