GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: PHIL 2 DIVISION: 10 ALSO LISTED AS:

TERM EFFECTIVE: Spring 2021 CURRICULUM APPROVAL DATE: 11/10/2020

SHORT TITLE: INTRO TO LOGIC

LONG TITLE: Introduction to Logic

Units	Number of Weeks	Type	Contact Hours/Week	Total Contact Hours
3	18	Lecture:	3	54
		Lab:	0	0
		Other:	0	0
		Total:	3	54
		Total Learning Hrs:	162	

COURSE DESCRIPTION:

Logic is the study of good reasoning. This course will explore two important modes of reasoning: deduction and induction. We will use formal methods from sentential logic, including truth tables and proofs, to test for correct or 'valid' inferences. Common mistakes in reasoning (i.e., fallacies) will be examined, as well as language and scientific reasoning. Practical application in logic outside the classroom will be emphasized. ADVISORY: Eligible for English 1A.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES
L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:
02 - Lecture and/or discussion
05 - Hybrid
71 - Dist. Ed Internet Simultaneous
72 - Dist. Ed Internet Delayed

STUDENT LEARNING OUTCOMES:

1. Learners will identify the parts of an argument, and distinguish between deductive and inductive arguments, and apply the concepts.

Measure: quiz, exam

PLO: 1,4

ILO: 2,1,7

GE-LO: A1, A2,A4,A6,A7,A8,A9,C3,C4,C6,C7,F2

Year assessed or anticipated year of assessment: 2015-16

2. Learners will identify major formal and informal fallacies

Measure: quiz, final exam

PLO: 1,4

ILO: 2,1,7

GE-LO: A1,A2,A4,A5,A6,A7,A8,A9,C3,C4,C6,C7,F2

Year assessed or anticipated year of assessment: 2015-16

3. Learners will evaluate the logic and strength of arguments using inductive and deductive methods, including the truth-table and proof, i.e., natural deduction, methods.

Measure: writing

PLO: 1,2,3,4

ILO: 2,1,7

GE-LO: A1,A2,A4,A5,A5,A7,A8,A9,C3,C4,C6,C7,F2

Year assessed or anticipated year of assessment: 2015-16

4. Learners will provide cogent reasons in support of opinions, while taking objections seriously by developing a philosophical frame of reference

Measure: debates, writing assignments

PLO: 2,3,4,5

ILO: 2,1,7,4,6

GE-LO: A1-9, C3,C4,C6,C7,F2

Year assessed or anticipated year of assessment: 2015-16

5. Learners will demonstrate an understanding of the distinctions between Eastern and Western ideas and application of logic and argumentation

Measure: writing assignment, quiz

PLO: 4,5,6

ILO: 2,1,7,4,6

GE-LO: A1-9, C3,C4,C6,C7,F2

Year assessed or anticipated year of assessment: 2015-16

6. Learners will describe the basic foundational concepts of philosophy

Measure: writing, quiz

PLO: 4,5

ILO: 2,1,7,4,6

GE-LO: A1-9,C3,C4,C6,C7,F2

Year assessed or anticipated year of assessment: 2015-16

7. Learners will demonstrate an insight into the use of logical reasoning as a political construct with respect to its application toward women and marginalized groups

Measure: writing

PLO: 3,5,6

ILO: 2.1.7.4.6

GE-LO: a1-9,C3,C4,C6,C7,F2

Year assessed or anticipated year of assessment: 2015-16

PROGRAM LEARNING OUTCOMES:

1. Analyze and critique an argument.
2. Effectively argue in support of an opinion.
3. Write an argumentative essay.
4. Define key terms of philosophical vocabulary relevant to the course.
5. Distinguish different areas of philosophy.
6. Understand some of the diverse assumptions and the values and attitudes that shape our lives.

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 11/10/2020

DE MODIFICATION ONLY

WEEK 1 2 HOURS?

Introduction to the subject of logic and argumentation, including an overview of philosophy in general. Expectations for the course will be laid out. Assigned: creative connections project. Read chapter 1: Intro To Arguments?

WEEKS 1-2 4 HOURS?

Arguments: Students will learn to distinguish between supported and unsupported assertions, the criteria for arguments as opposed to explanations, the distinction between premise and conclusion, what to do with incompletely formulated arguments, and how to put arguments into standard form.? Assign: Ex. 1.1, 1.2, 1.6 (even) Quiz 1 upon completion of chapter Assign Chap. 2 readings?

WEEK 3 3 HOURS

?Language of Arguments: Students will be introduced to the philosophical notion of a sentence and its use in logic, the distinction between ambiguity and vagueness, intentional versus extentional meaning, development of definitions and the variety of types of definition. Students will discover the social political attributes of language and the ideas of meaning in context. Assign: Ex. 2.1, 2.2, 2.3, 2.4 Quiz 2 upon completion of chapter. Assign Chap 3

WEEK 4-5 6 HOURS?

Distinction between Deductive Arguments, Inductive Arguments, and Fallacies. ?Criteria for validity, soundness, versus 'true' in Deductive arguments. Discussion of the forms of deductive arguments (e.g. modus ponens, disjunctive syllogism, etc.). Criteria for the evaluation of strength of Inductive arguments and a discussion of the forms of induction (e.g. statistical syllogisms, analogy, etc.). Close look at fallacies, including the? different types and sub-types, their use and misuse, etc.? Assign: 3.1, 3.2, 3.3, 3.4 An in-class competency exercise on? fallacies will be given in the form of a game of Jeopardy! Quiz 3 Reading: Chap 4?

WEEK 6 3 HOURS?

Inductive Arguments in Depth. Statistical syllogisms, including ?standard form and standards for strength, associated fallacies, and special types of statistical syllogisms. Discussion of arguments from analogy, includes form, strength, associated fallacies, and legal and moral reasoning. Students will be given a brief writing assignment?that will assess their ability to create an analogy. Arguments based on samples, and pro/con arguments. Assign: 4.1, 4.3, 4.4, 4.5 and Chap 5 Quiz 4?

WEEK 7-8 6 HOURS?

Causal Arguments: Distinction between causal claims and causal arguments as well as the different interpretations of the idea of ?causation. Mill's method's for establishing causal claims will be introduced: Method of Agreement, Difference, Joint Method of Agreement and Difference, Concomitant Variation, and Residues. Assign: 5.1, 5.2, Hume's analysis of causation, discussion of causal fallacies. quiz 5 Assign Review for mid-term?

WEEK 9 1 HOURS?

Mid-term Examination: Chap 1-5 Assign Chap 6?

WEEK 9-10/11 8 HOURS?

Deductive Reasoning Part I: Introduction to sentential/propositional logic. Students will be introduced to the language and syntax of sentence logic. Students will learn the definition of a well-formed formula and the definitions of the logical connectives for 'not', 'and', 'or', 'if/then', and 'if and only if'. Ordinary English sentences will be symbolized into sentence logic. Symbolized statements will be translated back into English as well. Students will take home a set of sentences for practicing symbolization. This assignment will be reviewed in class by students in groups and then later as a class led by the instructor. A quiz will be given at the end of the section.

WEEK 12/13 6 HOURS

Deductive Reasoning Part II: Continuation of symbolizing (i.e., translating) English into sentential logic. During these weeks more complicated (i.e., compound) statements will be symbolized by students, including sentences with the phrases 'not both', 'neither nor', 'unless', 'just in case', and 'necessary and sufficient conditions'. Practice sets will be assigned for homework, which will be reviewed by students in groups and then by the instructor. An exam will be given to assess the students' mastery of symbolization.

WEEK 13-15 9 HOURS?

Deductive Reasoning Part III: The concept of validity will be reviewed. Students will employ the truth-table (semantic) method for determining validity, consistency, contradiction, tautology, and contingency. Assign: 9.1, 9.2, 9.5, hand-outs, ?quiz #8?

WEEK 16-17 6 HOURS

Deductive Reasoning Part IV: The proof (syntactic) method (i.e., the natural deduction or derivation method) for determining validity will also be employed. Students will construct proofs alongside the instructor and then later as a take-home assignment to be assessed the following class. ?

WEEK 18 2 HOURS

?review for final exam: make-up quizzes, and wrap up of course?. Daily homework, in-class group assignments/presentations.

METHODS OF INSTRUCTION:

Lecture/discussion, small group work, quizzes, exams, demonstrative homework

METHODS OF EVALUATION:

CATEGORY 1 - The types of writing assignments required:

Percent range of total grade: 5 % to 10 %

Written Homework

If this is a degree applicable course, but substantial writing assignments are not appropriate, indicate reason:

Course primarily involves skill demonstration or problem solving.

CATEGORY 2 -The problem-solving assignments required:

Percent range of total grade: 75 % to 80 %

Homework Problems

Quizzes

Exams

Other: group work

CATEGORY 3 -The types of skill demonstrations required:

Percent range of total grade: 0 % to 10 %

Class Performance/s

Performance Exams

CATEGORY 4 - The types of objective examinations used in the course:

Percent range of total grade: 5 % to 5 %

Multiple Choice

True/False

Completion

REPRESENTATIVE TEXTBOOKS:

Hurley, Patrick J. A Concise Introduction to Logic, 12th Edition. Belmont, CA: Wadsworth, 2014. Or other appropriate college level text.

ISBN: 1285196546

Reading level of text, Grade: 14Verified by: Ryan Scherbart

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RTICULATION and CERTIFICATE INFORMATION

Associate Degree:

GAV C2, effective 200530

CSU GE:

CSU A3, effective 200530

IGETC:

CSU TRANSFER:

Transferable CSU, effective 200530

UC TRANSFER:

Transferable UC, effective 200530

SUPPLEMENTAL DATA:

Basic Skills: N
Classification: Y
Noncredit Category: Y
Cooperative Education:
Program Status: 1 Program Applicable
Special Class Status: N
CAN: PHIL6
CAN Sequence: XXXXXXXX
CSU Crosswalk Course Department: PHIL
CSU Crosswalk Course Number: 2
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: E
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000090417
Sports/Physical Education Course: N
Taxonomy of Program: 150900