COURSE DISCIPLINE : PHILO

COURSE NUMBER : 117

COURSE TITLE (FULL) : Introduction To Logic

COURSE TITLE (SHORT) : Intro To Logic

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID : PHIL 110 – Introduction to Logic

ACADEMIC SENATE DISCIPLINE: Philosophy

CATALOG DESCRIPTION

PHILO 117 is a study of the structure and function of language, inductive and deductive forms of reasoning and argumentation. The course includes the study of formal argumentation, the predicate calculus, the methods of experimental inquiry, and the nature of scientific proof.

Total Lecture Units:3.00

Total Laboratory Units: 0.00

Total Course Units: 3.00

Total Lecture Hours:54.00

Total Laboratory Hours: 0.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Total Out-of-Class Hours: 108.00

Recommended Preparation: ENGL 100 or ESL 151.

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	ENGL	100	Writing Workshop	Read, analyze, and evaluate contemporary articles and stories to identify topic, thesis, support, transitions, conclusion, audience, and tone;	Yes
2	ENGL	100	Writing Workshop	read, analyze, and evaluate contemporary articles and stories for the comprehension of difficult content and the identification of main ideas and (topic-based) evidence;	Yes
3	ENGL	100	Writing Workshop	read, analyze, and evaluate student compositions for unity, development, use of evidence, interpretation, coherence, and variety of sentence form;	Yes
4	ENGL	100	Writing Workshop	write a summary of a contemporary article or story with correct citation techniques;	Yes
5	ENGL	100	Writing Workshop	write an argumentative essay that has an introduction, body paragraphs, and a conclusion, demonstrating a basic understanding of essay organization;	Yes
6	ENGL	100	Writing Workshop	write an argumentative essay that addresses the topic, is directed by a thesis statement, uses appropriate textual evidence, develops logical interpretations, and concludes with some compelling observations;	Yes
7	ENGL	100	Writing Workshop	write an argumentative essay that integrates the ideas of others (i.e., authors) through paraphrasing, summarizing, and quoting with correct citation techniques;	Yes
8	ENGL	100	Writing Workshop	write an argumentative essay that generates novel ideas (those that add to the conversation rather than repeating the author's ideas) related to the topic and the readings;	Yes
9	ENGL	100	Writing Workshop	write compositions (e.g., summaries and argumentative essays) that are easy to read and follow, though some errors in grammar, mechanics, spelling, or diction may exist;	Yes
10	ENGL	100	Writing Workshop	proofread and edit essays for content, language, citation, and formatting problems.	Yes
11	ESL	151	Reading And Composition V	read and critically analyze various academic readings;	Yes
12	ESL	151	Reading And Composition V	summarize readings;	Yes
13	ESL	151	Reading And Composition V	organize fully-developed essays in both expository and argumentative modes;	Yes

14	ESL	151	Reading And Composition V	compose a 500 to 550-word essay which: summarizes and cites appropriately a reading passage; includes a clear thesis statement; uses evidence to support the thesis; shows clear organization into an introduction, body, and conclusion;	Yes
15	ESL	151	Reading And Composition V	revise writing to eliminate errors in syntax, and grammatical constructions;	Yes
16	ESL	151	Reading And Composition V	employ basic library research techniques;	Yes
17	ESL	151	Reading And Composition V	compose one research paper (1,000 words) or two short research papers (500-700words each) with citations.	Yes

EXIT STANDARDS

1 Identify inductive and deductive arguments and assess their respective strengths and weaknesses;
2 identify major fallacies of reasoning, and recognize their use in written and spoken communication;
3 apply basic techniques to translate ordinary English sentences into propositional and predicate form to evaluate the validity of arguments based on such forms;
4 identify the structure of analogical arguments.

STUDENT LEARNING OUTCOMES

1 distinguish inductive from deductive arguments and evaluate arguments in terms of logical form;
2 explain key structural features of analogical and causal arguments and evaluate such arguments independently of concerns about the plausibility of their premises.

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Language • Introduction to the subject (e.g., the source of logic's 'oughts' and why the statue of justice is blindfolded) 　◦ Being logical (e.g., does Clifford's maxim mean we must carefully inspect every purported perpetual motion machine?) 　◦ Introduction to technical terminology (e.g., why trust truth preserving inferences or deny arguments can be true or false?) 　◦ Minimizing vague language (e.g., intellectual honesty vs. manipulation) • Fallacies (e.g., applying the principle of charity in attributing error) 　◦ Informal fallacies (e.g., contextualized error) 　◦ Formal fallacies (e.g., logical form and literal meaning) 　◦ Avoidance of fallacies (e.g., if Clifford's maxim is false, what place does the sphere of reason have in our lives?)	10	0	10
2	Connecting Propositional Claims (e.g., Gricean implicature, opaque contexts) • Disjunctions • Conjunctions • Conditionals • Biconditionals	9	0	9
3	Formalizing Propositional Arguments (e.g., why care about validity in ignorance of soundness?) • Modus ponens • Modus tollens • Affirming the consequent • Denying the antecedent • Hypothetical syllogisms • Disjunctive syllogisms	9	0	9
4	Evaluating by Truth Tables for Formalized Arguments	9	0	9

5	Visualizing Categorical Arguments • Venn Diagrams (e.g., Aristotelian and Boolean assumptions) • Predicate Calculus (e.g., standard derivations,using rules of inference and axioms of replacement, only monadic predicates, and some models proving invalidity)	9	0	9
6	Induction (e.g., assessing strength without determining cogency) • Analogy and provable inference ◦ Argument by analogy (e.g., J.J. Thompson's plugged in violinist) ◦ Appraising analogical arguments (e.g., exploring our concept of self-defense) • Causal connections (e.g., falsification and confirmation) ◦ The meaning of cause and effect (e.g., necessary and sufficient conditions and some attempts at defining causality) ◦ Conditions of plausible cause and effect (e.g., Mill's Methods)	8	0	8
				54

OUT OF CLASS ASSIGNMENTS

1   short essays identifying informal fallacies in advertising, political speeches, and campus lectures (e.g., identifying skillful use of straw person, red herring or ad hominem by presidential candidates);
2   diagrams of complex discursive essays (e.g., summarizing Orwell's essay, "Politics and the English Language," in 20 claims and then diagraming their support relations);
3   construct effective formal and informal counterexamples to argumentative inferences (e.g., group discussion about, if group members think happiness is more important than truth, most are reluctant to live in a pleasure-experience machine).

METHODS OF EVALUATION

1   in-class objective and/or essay examinations;
2   homework problems and puzzles;
3   argumentative essays;
4   final examination.

METHODS OF INSTRUCTION

- ☑ Lecture
- ☐ Laboratory
- ☐ Studio
- ☑ Discussion
- ☐ Multimedia
- ☐ Tutorial
- ☐ Independent Study
- ☑ Collaboratory Learning
- ☑ Demonstration
- ☐ Field Activities (Trips)
- ☑ Guest Speakers
- ☑ Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	IBSN	Date
A Concise Introduction to Logic	Required	Wadsworth	14	Print	Hurley, Patrick J	9781305958098	2018
Introduction to Logic	Required	Routledge	15	Print	Late, Irving M	9781138500860	2019