PHIL 112C : Beginning Logic

Explores the principles of reasoning and development of symbolic techniques for evaluating arguments. The main components of deductive symbolic logic are introduced, and students gain skill using these techniques, which are used in mathematics, logic, computer science, statistics, and linguistics. Introduction to symbolic logic, including sentential and predicate logic, is taught with a focus on translating English statements into symbolic notation and evaluating arguments for validity using formal proof techniques. Students are able to distinguish types of arguments, consequences of claims, inconsistency, and the relationship between truth and logic, and detect and avoid ambiguities in language.

Credits 3
Lab/Practicum/Clinical Hours 0
Lecture Hours 3
Learning Outcomes
- Represent the logical structure of statements and arguments.
- Apply basic concepts of logic, such as formal reasoning, and the relationships of the concepts.
- Demonstrate an introductory knowledge of decidability.
- Provide logical arguments and find errors in incorrect arguments.
- Express the basic concepts of logic and their relevance for fields, including mathematics, computer science, linguistics, and statistics.
- Assess arguments for validity, using deductive reasoning and other methods.
- Apply these methods to real-world arguments.