PHIL& 120 : Symbolic Logic

Credits 5
Quarter Offered Fall (odd year)
Introduction to first-order symbolic logic. Topics include symbolizing, truth tables, truth trees, proofs for sentence and predicate logic with identity, conditional and indirect proof, and invalidating interpretations. This class may include students from multiple sections. (Quantitative Skills, Natural Sciences, Elective)
Prerequisites
P (2.0 or higher) in MATH 90 or equivalent
Course Outcomes

- Define the concepts of truth, validity, and soundness.
- Symbolize truth-functional sentences using symbolic notation.
- Using truth-tables and the truth-tree method for assessing validity.
- Construct proofs using the rules of propositional logic.
- Apply the methods of conditional and indirect proof.
- Symbolize quantified, predicate, and relational sentences using symbolic notation.
- Construct proofs using the rules of predicate logic.
- Providing interpretations to establish invalidity.