

# LOGIC

## COURSE DESCRIPTION:

The study of Logic is really the study of the formal principles of reasoning. This class will focus mostly on deductive logic rather than inductive logic. Deduction deals with arguments that are valid or invalid. Students will also have opportunities to practice logical thinking by learning how to solve various types of logic based puzzles.

## COURSE GOALS AND OBJECTIVES:

By the end of this course ...

- Each student will recite the meanings for all terms and symbols used in this course.
- Each student will prove their understanding of Inductive and Deductive Reasoning by successful completion of their homework assignments.
- Each student will correctly translate statements into the four categories of logical argument.
- Each student will identify and refute fallacies found in the world around them.
- Each student will diagram logical processes and refute the validity of the argument and its form.
- Each student will dissect arguments in normal English and state whether they are valid or invalid and correct the invalid ones.
- Each student will construct valid arguments in a debate that are pertinent and consistent with the debate using the Formal Rules of Thought and Logic.
- Each student will solve formal proofs for arguments using the Rules of Inference and Replacement.

## TEXTBOOKS:

Nance, James B. and Douglas J. Wilson. *Introductory Logic for Christian and Home Schools*, 4<sup>th</sup> Edition revised and expanded. Moscow, Idaho: Canon Press, 2005.

Nance, James B. *Intermediate Logic for Christian and Home Schools*, 4<sup>th</sup> Edition revised and expanded. Moscow, Idaho: Canon Press, 2005.

## COURSE OUTLINE:

Quarter One:	<b>Terms, Definitions, Statements and their Relationships</b>
Quarter Two:	<b>Syllogisms, Validity and Arguments in Normal English</b>
Quarter Three:	<b>Informal Fallacies and Propositional Logic</b>
Quarter Four:	<b>Formal Proofs of Validity</b>