**Grace Christian School**

**Logic**

**Syllabus**

**GRADE:** 10 **DATE:** July 21, 2020

**OVERVIEW:** 10th Grade Logic is an introductory course in formal, deductive logic. Special emphasis is given to the structure of arguments, the nature of language, and the logic of reasoning. Using methods such as Socratic dialogue, discussion, and integration of other subjects, this course teaches students practical and real-world application of soundly structured deductive logic.

**BASIC TEXT(S):** *The Discovery of Deduction: An Introduction to Formal Logic*

Joelle Hodge, Aaron Larsen, Shelly Johnson: Classical Academic Press, 2010

**MAJOR TOPICS AND SKILLS:**

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| FIRST QUARTER1. Introduction to Formal Logic: formal vs. informal logic, deductive vs. inductive reasoning, categorical vs. propositional logic
2. History of logic
3. Translating propositions into categorical form: finding the propositions, finding the subject term and the predicate term, affirmo and nego, supply the proper quantifier, propositions translated into categorical form
4. Reading and analysis: Plato, *Socrates'* *Apology*; Sir Arthur Conan Doyle, *Sherlock Holmes: A Case of Identity*
 | SECOND QUARTER1. Relationships of opposition: square of opposition, contradiction, contrariety and subcontrariety, implication and sub-implication
2. Relationships of equivalence: obverse, converse, contraposition
3. Reading and analysis: Shakespeare, *Julius Caesar,* Act II, Scene II; Shakespeare, *Hamlet,* Act IV, Scene III;Sir Arthur Conan Doyle, *Sherlock Holmes: The Adventures of the Dancing Men;* Plato, *Socrates’ Dialogue: Crito*
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| THIRD QUARTER1. The Syllogism: syllogisms and validity, arranging the syllogism, categorical syllogism, enthymemes, moods and figures
2. Determining the validity of syllogisms: validity and the counterexample method, rules 1-4, qualitative rules, venn diagramming
3. Reading and analysis: Plato, *Socrates’ Dialog: Euthyphro*
 | FOURTH QUARTER1. Definitions and disagreements: types of disagreements, types of definitions, extension vs. intention, modes of definition, presuppositional disputes, pursuing truth
2. Debate: Use formal and informal logic to debate current issues.
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