PH 1115: Aristotelian Logic
Dominican School of Philosophy and Theology

Fall 2014
Tuesdays and Fridays, 8:10–9:30 AM
DSPT 3

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Course Description and Objectives:

This course focuses on the fundamental principles and techniques of classical logic first articulated in Aristotle’s Organon and further developed by ancient, medieval and modern thinkers. It also provides the philosophical background to classical logic, serving as an introduction to the basic epistemological and metaphysical concepts of Aristotelian and Thomistic philosophy integral to studying at the DSPT. Thus the course includes a theoretical, philosophical component as well as a practical one. The course is loosely organized around the traditional distinction of the three operations of the mind: simple apprehension, judgment, and reasoning. The course will conclude with an examination of logical fallacies and a brief excursus into modern symbolic logic. This course partially fulfills the systematic philosophy area requirement for the Philosophy or Concurrent M.A. program. Its also satisfies the philosophical ethics requirement of the Western Dominican Province’s Ratio Studiorum.

Although a substantial portion of the class will consist of lecture by the professor, there will also be discussion of primary texts selected from the writings of Aristotle, review of assigned exercises, and ample opportunity for student questions.

By the end of the semester, students should be able to:

• Explain the foundational principles of traditional logic, including intentionality, the three acts of the mind, the nature of logical laws, and Aristotle’s categories.

• Distinguish different types of definition based on an understanding of Aristotle’s account of the predicables, essences, and the difference between essential and accidental properties.
• Identify the basic logical structure of arguments in ordinary language by translating them into proper logical form.
• Recognize relations of immediate logical entailment among propositions using obversion, conversion, contraposition, and the Square of Opposition.
• Distinguish valid and invalid deductive arguments using Aristotle’s six rules for syllogisms, Venn diagrams, and knowledge of syllogistic mood and figure.
• Identify material and formal logical fallacies in public rhetoric and everyday conversation.
• Briefly describe key differences between Aristotelian logic and modern symbolic logic.

Course Requirements:

Students will be expected to carefully prepare assigned readings and exercises and participate in class discussion. Assigned exercises should be submitted to the professor for credit (late submissions will receive partial credit), although they will not be graded. The completion of assigned problem sets is an important part of the course. The logical techniques and principles discussed in class are meant to be understood so as to be put into practice, so that logic may truly become a tool for the student’s continuing philosophical and theological study, critical thinking, and responsible leadership. Exercises will allow the student’s knowledge of logic to become practical, integrated, and instinctual. Three examinations (2 midterm exams and a cumulative final exam) will test students’ knowledge of philosophical concepts and facility to apply these in problem solving.

Students are expected to be present for class sessions, following the policies set forth in the DSPT student handbook. Absences will affect the student’s final grade. Students should plan, in particular, to be present for all exams listed on the course syllabus (given on September 30, November 4, and December 12), since make-up exams will be given only in the event of a serious illness (with doctor’s note) or an equally grave reason. Students with disabilities or whose first language is not English are encouraged to speak with the instructor about any special needs they might have.

Grading: Assignments (completed, not graded): 20%
Exams 1 and 2: 40% (20% each)
Final Exam: 40%
Assigned Texts:


Assignments and weekly reading will be taken from Kreeft’s *Socratic Logic*, which will be the main text for the course. Primary source readings for the class will be selected from Aristotle’s *Categories, On Interpretation, Prior Analytics, Posterior Analytics*, and *Topics*. McKeon’s *Basic Works of Aristotle* is an affordable compilation of these texts, often available for around $15 at online booksellers. Although not all translations are of equal quality, students may feel free to use an edition of Aristotle’s works other than McKeon’s, including public domain texts available online. Supplemental readings, course handouts, and a bibliography of further resources will be available on Moodle (http://moodle.gtu.edu).

Course Schedule:

9/2: Course Introduction
  Fundamental Concepts of Logic

9/5: The Principles of Logic and the Problem of Psychologism
  “Psychologism,” from the Stanford Encyclopedia of Philosophy:
  http://plato.stanford.edu/entries/psychologism

9/9: The First Act of the Intellect I: Simple Apprehension
  Signs, Concepts and Terms
    Kreeft: pp. 26-54
    Aristotle, selections from the *Categories*
9/12: The First Act of the Intellect II: Simple Apprehension

The Categories

Exercises: pp. 34 (all), 49-50 (all); 51 (all); 52 (all); 53-54 (all)
Kreeft: pp. 54-56
Aristotle, selections from the *Categories*
Jorge J. E. Gracia, “Are Categories Invented or Discovered?”

9/16: The First Act of the Intellect III: Simple Apprehension

The Predicables

Exercises: pp. 55-56 (all)
Kreeft: pp. 56-67
Aristotle, selections from the *Topics*
Porphyry, selections from the *Isagoge*

9/19: The First Act of the Intellect IV: Simple Apprehension

Types and Limits of Definition

Exercises: 61-62 (all); 64-66 (even)
Kreeft: pp. 123-137
Aristotle, selections from the *Posterior Analytics* and the *Topics*

9/23: The Second Act of the Intellect I: Judgment

Propositions

Exercises: pp. 131-132 (II.A, all)
Kreeft: pp. 138-152
Aristotle, selections from *De Interpretatione*
Aquinas, *De Veritate*, q. 1, aa. 1-3, 11-12:
http://dhspriory.org/thomas/QDdeVer1.htm

9/26: The Second Act of the Intellect II: Judgment

Propositions (Continued) and Distribution

Exercises: pp. 132-136 (II, B-C, even)
Kreeft: pp. 152-165
Aristotle, selections from *De Interpretatione*
Terence Parsons, “The Doctrine of Distribution”
9/30: **Exam 1**

10/3: The Second Act of the Intellect III: Judgment
   Immediate Inference: Conversion, Obversion, Contraposition, and Contradiction
   Exercises: pp. 156-159 (A-C, even); 164-165 (all)
   Kreeft: pp. 166-174

10/7: The Second Act of the Intellect IV: Judgment
   The Square of Opposition
   Exercises: pp. 171-172 (all), 174 (all)
   Kreeft: pp. 174-185
   Raymond M. Smullyan, selections from *The Lady or the Tiger?* (Class Handout)

10/10: The Third Act of the Intellect I: Reasoning
   Types of Arguments and Introduction to the Syllogism
   Exercises: pp. 178-179 (all); 182-183 (all)
   Kreeft: pp. 186-214
   Aristotle, selections from the *Prior Analytics*

10/14: The Third Act of the Intellect II: Reasoning
   Syllogistic Form
   Exercises: pp. 199 (all); 205 (all)
   Kreeft: pp. 215-236
   Aristotle, selections from the *Prior Analytics*

10/17: The Third Act of the Intellect III: Reasoning
   Syllogistic Form and Determining Validity
   Exercises: pp. 219 (all); 234-235 (A-all, B-even)
   Kreeft: pp. 237-253
   Aristotle, selections from the *Prior* and *Posterior Analytics*

10/21 & 10/24: Reading Week (No Class)
10/28: The Third Act of the Intellect IV: Reasoning
   Additional Tests for Validity
   Exercises: pp. 253-257 (A-all, B-even)
   Kreeft: pp. 257-263
   Aristotle, selections from the *Prior* and *Posterior Analytics*

10/31: The Third Act of the Intellect V: Reasoning
   Difficult/Implicit Syllogisms and Compound Syllogisms
   Exercises: Class Handout
   Kreeft: pp. 264-282, 289-312

11/4: **Exam 2**

11/7: Fallacies I: Formal and Linguistic Fallacies
   Exercises: pp. 282 (all); 299-301 (even); 302-303 (all); 305-306 (all)
   Kreeft: pp. 68-86

11/11: Fallacies II: Material Fallacies
   Exercises: pp. 72-73 (all) and Handout
   Kreeft: pp. 86-100
   Douglas N. Walton, “The Essential Ingredients of the Fallacy of Begging the Question”

11/14: Fallacies III: Inductive Fallacies
   Exercises: Class Handout
   Kreeft: pp. 100-113, 313-335

11/18: Introduction to Symbolic Logic I: Sentential Logic
   Truth Functionality and Connectives
   Exercises: pp. 317-319 (all), 333-335 (even)
   Reading: TBA
   Reading: TBA
   Exercises: Class Handout

11/25: Introduction to Symbolic Logic III: Predicate Logic
   Variables and Quantifiers
   Reading: TBA
   Exercises: Class Handout

11/28: Thanksgiving Break (No Class)

12/2: The Modern Critique of Aristotelian Logic
   Francis Bacon, selections from the *Novum Organon*
   Henry Veatch, selections from *Two Logics*

12/5: Classical and Modern Logic: A Comparison
   Exercises: Class Handout
   Kreeft: pp. 15-25, 364-369
   Vilkko and Hintikka, “Existence and Predication from Aristotle to Frege”

12/12: **Final Exam**

N.B.: The instructor reserves the right to revise the course syllabus as the need arises.