

## PH-1115, Aristotelian Logic

Dominican School of Philosophy and Theology  
Fall 2023

**Class Meetings:** Tuesdays & Fridays, 8:10-9:40am, DSPT Classroom 2

**Instructor:** Fr. Raphael Mary Salzillo, O.P.  
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**Office Hours:** TBA

**Prerequisites:** None.

**Course Description:** This course introduces students to logical reasoning, focusing on the fundamental principles and techniques of classical logic first articulated in Aristotle's *Organon* and further developed by ancient, medieval, and modern thinkers. The course will include an examination of various errors and fallacies of reasoning, treatment of formal argument, and a brief introduction to modern symbolic logic.

Student evaluation will be based on participation in class, regularly submitted assignments, and three in-class exams.

The course serves to introduce students to the basic logical and metaphysical concepts presupposed by Aristotelian and Thomistic philosophy. Knowledge of such concepts, and facility with them, is crucial for any careful and critical reading the texts of medieval and ancient authors in the Aristotelian tradition, and is also generally useful for life. Hence, this course is integral to a DSPT education. Class time will include lecture, active discussion of primary texts, and review of assigned readings/exercises.

The course has no pre-requisites, but because completion of the written work (i.e. assignments and exams) is central to learning the material, auditors are excluded.

### Required Books:

- 1) Kelley, David. *The Art of Reasoning*. Third Edition. New York/London: W. W. Norton & Company, Inc., 1988.  
ISBN: 978-0393972139  
This book can be purchased online, used or new, for less than \$20.00.  
**Please check ISBN to make sure you get the 3<sup>rd</sup> edition.** Other editions may be more expensive and have different pagination.  
\*\*\*You will need to acquire a physical copy of this book.

- 2) Aristotle, *The Basic Works of Aristotle*. Edited by Richard McKeon. New York: Modern Library, 2001.  
ISBN: 978-0375757990.  
This book can be purchased online for less than \$25.00.  
\*\*\*I strongly recommend having a physical copy of this book on your shelf, for future use in your courses at DSPT. However, if you choose to purchase an electronic version, be sure that it has Becker numbers, which are the standard scholarly way of referencing texts in Aristotle's corpus. Becker numbers consist of two to four numerical digits followed by a lower-case letter, and then one or two more numerical digits (e.g. 74b17).

### Student Learning Goals:

1. To understand the foundational principles of traditional logic, including genus, species and difference, Aristotle's categories, and the concept of formal validity.
2. To be able to distinguish valid and invalid syllogisms in Aristotelian logic and to recognize fallacies of reasoning.
3. To grow in one's ability to read, understand, and evaluate a medieval philosophical text, especially by formalizing philosophical arguments in the text.
4. To gain a basic understanding of the concepts and technical apparatus of modern symbolic logic and predicate logic.

### Student Learning Outcome:

The student will demonstrate success in each of the four learning goals through class participation, regular assignments, and exams.

**Course Format:** The course will be run seminar style, with both attendance and active participation being required. There is no option online attendance in this course.

**Evaluation:** The course will be graded according to the following weighting:

Participation and Assignments: 30%

First Exam: 20%

Second Exam: 20%

Final Exam: 30%

**Course Requirements:** For each class day, students will be expected to prepare assigned readings and, usually, some sort of assignment (see below), in order to effectively participate in class discussion. **All assignments are to be submitted by 7pm the night before class.**

Three examinations (two midterm exams and a cumulative final exam) will test students' knowledge of philosophical concepts and facility to apply these in problem solving. Students may only use a pen/pencil and scratch paper during the exams.

Class discussion will include two parts: 1) discussion of the conceptual material for the course; 2) working through problems and drawing formal arguments out of the texts of Aristotle and Aquinas. Good participation in these discussions requires that one be prepared for class, having done the assigned readings and exercises beforehand. Absences will affect the student's final grade.

Students with disabilities or whose first language is not English are encouraged to speak with the instructor about any special needs they might have.

**Assignments:** Assignments in this course are basically of two sorts: exercises and reading responses.

**Exercises** are homework assignments that consist of logical problems to solve and/or questions to answer. These will usually be taken from the exercises in Kelley. Exercises will be graded mainly on whether they were diligently completed.

**Reading responses** are short essays in response to the reading for the day. These essays should be a paragraph or two (roughly 150-300 words) and can consist of comments, questions, philosophical points etc. However, they should be directly *about* the reading and should show that the student has not only done that reading, but reflected on it. Reading responses will be graded on whether they meet these standards. On days when there is a reading response due, students are expected to read over other students' reading responses in addition to submitting their own.

**Questions** are like reading responses, but less open-ended. When questions are assigned, each student is to submit two questions on the reading. These questions, like the reading essays, should be significant and should reveal that the student has done the reading and reflected upon it. As with reading responses, students should read other students' questions sometime before class.

**Both reading responses and questions are submitted via a discussion forum on Moodle.**

**All assignments are due at 7pm the night before class. Late assignments may receive partial credit, at the professor's discretion.**

## Schedule of Class Sessions

### 9/5, Introduction to the course

### 9/8, Classification: Genus, Species, and Abstraction

Reading: Kelley Ch. 2  
Aristotle, *Categories* 1-4  
Assignment: Kelley p. 23, #5-10  
Kelley p. 29-30, Section E, #2-6  
Questions: Aristotle

### 9/12, Definition

Reading: Kelley Ch. 3  
Aristotle, *Categories* 5  
Assignment: Reading Reflections (1): Aristotle

**9/15, Informal Fallacies**

Reading: Kelley Ch. 4, pp. 59-62  
Kelley Ch. 6, pp. 125-146

Assignment:

**9/19, More Fallacies and Logical Positivism**

Reading: Kelley Ch. 6, 147-154  
<https://www.youtube.com/watch?v=CiTPt57tin0>  
Ayer (will be posted on Moodle)

Assignment:

**9/22, The Distinction Between Facts and Opinions**

Reading: (Watch these short videos before reading the article)  
[https://www.youtube.com/watch?v=S\\_oUecaHoKU](https://www.youtube.com/watch?v=S_oUecaHoKU)  
<https://www.youtube.com/watch?v=TIYsfLM2kV4>  
[https://www.youtube.com/watch?v=Flyt5pEcE\\_g](https://www.youtube.com/watch?v=Flyt5pEcE_g)  
<https://www.youtube.com/watch?v=iLkxlwx1CKA>  
Corvino, "The Fact/Opinion Distinction" (on Moodle)

Assignment: Reading Reflections (2): Videos, Corvino

9/26,

9/29 **NO CLASS – FR. RAPHAEL MARY AWAY**

10/3

10/6 **FIRST EXAM**

10/10

10/13 **NO CLASS – EPISCOPAL ORDINATION OF FR. STEVEN MAEKAWA, O.P.** [A DSPT alumnus!]

10/17

10/20

10/23 – 10/27 **NO CLASSES – READING WEEK**

10/31 Spooky Logic

11/3

11/7

**11/10 SECOND EXAM**

11/14 [Begin modern logic]

**11/17 NO CLASS – AMERICAN CATHOLIC PHILOSOPHICAL ASSOCIATION, ANNUAL MEETING**

11/21

**11/22 – 11/24 NO CLASSES – THANKSGIVING BREAK**

11/28

12/1

12/5

12/8

12/12

**12/15 FINAL EXAM**

## Additional Resources

(Thanks to Fr. Justin Gable, O.P. for compiling the following bibliography.)

The following is list of supplemental and suggested readings. They are by no means required reading for the course, but may be of some interest to students wishing to do additional research in the area of Aristotelian and philosophical logic.

Bäck, Allan. *Aristotle's Theory of Abstraction*. New York: Springer International, 2014. Bennett, Deborah J. *Logic Made Easy: How to Know When Language Deceives You*. New York: W. W. Norton and Company, 2004.

Bergmann, Merrie, James Moor, and Jack Nelson. *The Logic Book*. Sixth Edition. New York: McGraw-Hill, 2013.

Broadie, Alexander. *Introduction to Medieval Logic*. Second Edition. Oxford: Clarendon Press, 1993.

Brown, Leslie. "Definition and Division in Plato's Sophist." In *Definition in Greek Philosophy*, edited by David Charles, 151-71. Oxford: Oxford University Press, 2010.

Charles, David. "Definition and Explanation in the Posterior Analytics and Metaphysics." In *Definition in Greek Philosophy*, edited by David Charles, 286-328. Oxford: Oxford University Press, 2010.

Chiba, Kei. "Aristotle on Essence and Defining-Phrase in His Dialectic." In *Definition in Greek Philosophy*, edited by David Charles, 203-51. Oxford: Oxford University Press, 2010.

Crivelli, Paolo. "The Stoics on Definition." In *Definition in Greek Philosophy*, edited by David Charles, 359-423. Oxford: Oxford University Press, 2010.

Englebretsen, George. *Something to Reckon With: The Logic of Terms*. Ottawa: The University of Ottawa Press, 1996.

Englebretsen, George and Charles Sayward. *Philosophical Logic: An Introduction to Advanced Topics*. New York: Continuum International, 2011.

Føllesdal, Dagfinn. "Husserl and the Categories." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 118-35. Washington, D.C: The Catholic University of America Press, 2004.

Garson, James W. *Modal Logic for Philosophers*. Cambridge: Cambridge University Press, 2006.

Garver, Newton. "Language-Games as Categories: An Aristotelian Theme in Wittgenstein's Later Thought." In *Categories: History and Systematic Essays*, edited by Michael Gorman and

- Jonathan J. Sanford, 136-47. Washington, D.C: The Catholic University of America Press, 2004.
- Geach, P. T. *Logic Matters*. Berkeley, CA: University of California Press, 1980.
- Gill, Mary Louise. "Division and Definition in Plato's Sophist and Statesman." In *Definition in Greek Philosophy*, edited by David Charles, 172-99. Oxford: Oxford University Press, 2010.
- Gracia, Jorge J. E. "Are Categories Invented or Discovered? A Response to Foucault." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 268-84. Washington, D.C: The Catholic University of America Press, 2004.
- Groarke, Louis. *An Aristotelian Account of Induction: Creating Something from Nothing*. Montreal, Canada: McGill-Queen's University Press, 2009.
- Haack, Susan. *Philosophy of Logics*. Cambridge: Cambridge University Press, 1978.
- Hansen, Hans V. and Robert C. Pinto, eds. *Fallacies: Classical and Contemporary Readings*. University Park, PA: Pennsylvania State University Press, 1995.
- Hausman, Carl R. "Charles Peirce's Categories, Phenomenological and Ontological." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 97-117. Washington, D.C: The Catholic University of America Press, 2004.
- Hood, Jane. "Galen's Aristotelian Definitions." In *Definition in Greek Philosophy*, edited by David Charles, 450-66. Oxford: Oxford University Press, 2010.
- Hurley, Patrick J. *A Concise Introduction to Logic*. Twelfth Edition. Stamford, CT: Cengage Learning, 2014.
- Lang, Helen. "Aristotle's Categories of When and Where." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 21-32. Washington, D.C: The Catholic University of America Press, 2004.
- Mates, Benson. *Stoic Logic*. Berkeley, CA: University of California Press, 1953. Matilal, Bimal Krishna. *The Character of Logic in India*. Edited by Jonardon Ganeri and Heeraman Tiwari. Albany, NY: State University of New York Press, 1998.
- Matilal, Bimal Krishna and Robert D. Evans, eds. *Buddhist Logic and Epistemology: Studies in the Buddhist Analysis of Inference and Language*. Dordrecht, Holland: D. Reidel Publishing, 1986.
- McMahon, William E. "Reflections on Some Thirteenth- and Fourteenth-Century Views of the Categories." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 45-57. Washington, D.C: The Catholic University of America Press, 2004.

- Modrak, Deborah. "Nominal Definition in Aristotle." In *Definition in Greek Philosophy*, edited by David Charles, 252-85. Oxford: Oxford University Press, 2010.
- Morrow, David R. and Anthony Weston. *A Workbook for Arguments: A Complete Course in Critical Thinking*. Indianapolis, IN: Hackett Publishing, 2011.
- Oderberg, David S., ed. *The Old New Logic: Essays on the Philosophy of Fred Sommers*. Cambridge, MA: MIT Press, 2005.
- Oesterle, John A. *Logic: The Art of Reasoning and Defining*. Second Edition. Englewood Cliffs, NJ: Prentice-Hall, 1963.
- Parry, William T. and Edward A. Hacker. *Aristotelian Logic*. Albany, NY: State University of New York Press, 1991.
- Parsons, Terence. *Articulating Medieval Logic*. Oxford: Oxford University Press, 2014.
- Quinn, Timothy Sean. "Kant: The Practical Categories." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 81-96. Washington, D.C: The Catholic University of America Press, 2004.
- Sanford, Jonathan. "Categories and Metaphysics: Aristotle's Science of Being." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 3-20. Washington, D.C: The Catholic University of America Press, 2004.
- Sim, May. "Categories and Commensurability in Confucius and Aristotle: A Response to MacIntyre." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 58-77. Washington, D.C: The Catholic University of America Press, 2004.
- Smith, Barry. "Carving Up Reality." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 225-37. Washington, D.C: The Catholic University of America Press, 2004.
- Sokolowski, Robert. "Categorial Intentions and Objects." In *Categories: History and Systematic Essays*, edited by Michael Gorman and Jonathan J. Sanford, 204-24. Washington, D.C: The Catholic University of America Press, 2004.
- Sommers, Frederic Tamler. *The Logic of Natural Language*. Oxford: Clarendon Press, 1982.
- Sorabji, Richard. "The Ancient Commentators on Concept Formation." In *Definition in Greek Philosophy*, edited by David Charles, 424-49. Oxford: Oxford University Press, 2010.
- Spangler, Mary Michael. *Logic: An Aristotelian Approach*. Revised Edition. Eugene, OR: Wipf & Stock Publishing, 2012.

Kelley, Scott M. *An Introduction to Traditional Logic: Classical Reasoning for Contemporary Minds*. Third Edition. Houston, TX: Classical Theist Publishing, 2013.

Tidman, Paul and Howard Kahane. *Logic and Philosophy: A Modern Introduction*. Eleventh Edition. Belmont, CA: Wadsworth Publishing, 2009.

Veatch, Henry. *The Two Logics*.