

Methods in Philosophical and Critical Thinking

Period IV: March 14 – May 5, 2016

Objectives:

- Learn to distinguish between the form and the contents of an argument.
- Learn to reduce complex arguments into their components (premises, conclusions, supporting theses) and evaluate them.
- Learn to distinguish between strong arguments and weak ones.
- Learn the basics of some of the formal theories for evaluating arguments (e.g. logical and statistical reasoning).
- Learn how to read a complex philosophical or scientific paper.
- Learn how to develop a cogent philosophical argument.

Classes (biweekly): Tuesdays 10.15 - 11:45 (Unioninkatu 40, room 7) and Thursdays 10.15 - 11:45 (Unioninkatu 40, room 7).

Assessment (attendance of 12/14 classes is required for credits):

- 10% class attendance
- 20% exercise sessions
- 70% final exam

Contents of the course

The main texts for the course will be: (a) I.M. Copi, C. Cohen and K. McMahon, *Introduction to Logic — 14th Edition*. Pearson (2011); (b) Lemmon E.J., *Beginning Logic*. Chapman & Hall (1965); (c) Ian Hacking, *An Introduction to Probability and Inductive Logic*. Cambridge University Press (2000). Other texts will be provided in class by the instructor.

Structure of the course

The course will be divided in lectures and exercises. The students are requested to attend and participate actively in both lectures and exercises.

Schedule of classes & readings

- 1. Introduction** **March 15, 2015**
OPTIONAL READINGS: Copi et al., *Introduction to Logic* – Chapter 1
Moore and Parker *Critical Thinking* – Chapter 1
- 2. Analyzing Arguments** **March 17, 2015**
Copi et al., *Introduction to Logic* – Chapter 2
Exercises 1 (Arguments): March 18, 2016 – 12.15-13.45
- 3. Formal Logic – The Propositional Calculus** **March 22, 2015**
Lemmon, *Beginning Logic* – Chapter 1
- 4. Formal Logic – The Predicate Calculus** **March 29, 2015**
Lemmon, *Beginning Logic* – Chapter 3
Exercises 2 (Proofs): April 8, 2016 – 12.15-13.45
- 5. Logical Form and Language** **March 31, 2015**
Stanford Encyclopedia of Philosophy: Logical Forms
- 6. Fallacies and Biases** **April 05, 2015**
Copi et al., *Introduction to Logic* – Chapter 4
Exercises 3 (Fallacies): April 15, 2016 – 12.15-13.45
- 7. Fallacies and Biases:
– Applications** **April 07, 2015**
OPTIONAL READINGS: Baron, J., *Thinking and Deciding* – Chapters 1 and 2.
- 8. Intuitions and
Experimental Philosophy** **April 12, 2015**
Knobe, J., ‘Experimental Philosophy’
- 9. Thoughts Experiments** **April 14, 2015**
Rescher, N., *Thought Experiments in the History of Science and Philosophy*
Häggqvist, S., *Thought Experiments in Philosophy* – Chapter 5
- 10. Formal Logic – Modality** **April 19, 2015**
Girle, R., *Modal Logics and Philosophy* – Chapters 1,2,3
Exercises 4 (Analyzing Arguments): April 22, 2016 – 12.15-13.45
- 11. Probability** **April 26, 2015**
Hacking, J., *An Introduction to Probability and Inductive Logic* – Chapters 3 and 4
- 12. Fallacies of Probability** **April 28, 2015**
Hacking, J., *An Introduction to Probability and Inductive Logic* – Chapters 5 and 6
Exercises 5 (Probability): April 29, 2016 – 12.15-13.45
- 13. Causal Reasoning** **May 3, 2015**
Copi et al., *Introduction to Logic* – Chapter 12
Exercises 6 (Recap): May 04, 2016 – 12.15-13.45
- 14. Exam** **May 5**