

# Methods in Philosophical and Critical Thinking

**Period IV: March 10 – April 30, 2015**

## 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 formal theories for the evaluation of 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 12.15 - 13:45 (Unioninkatu 40, room 12) 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 the lectures and the exercises.

## Schedule of classes & list of required readings

- |  |   |                       |
|--|---|-----------------------|
|  |   | <b>March 10, 2015</b> |
| 1. Introduction                              | OPTIONAL READINGS: Copi et al., <i>Introduction to Logic</i> – Chapter 1<br>Moore and Parker <i>Critical Thinking</i> – Chapter 1                     |                       |
|  |   | <b>March 12, 2015</b> |
| 2. Analyzing Arguments                       | Copi et al., <i>Introduction to Logic</i> – Chapter 2<br><b>Exercises 1 (Arguments): March 16, 2015</b>   |                       |
|  |   | <b>March 17, 2015</b> |
| 3. Formal Logic – The Propositional Calculus | Lemmon, <i>Beginning Logic</i> – Chapter 1  |                       |
|  |   | <b>March 19, 2015</b> |
| 4. Formal Logic – The Predicate Calculus     | Lemmon, <i>Beginning Logic</i> – Chapter 3<br><b>Exercises 2 (Proofs): March 23, 2015</b>   |                       |
|  |   | <b>March 24, 2015</b> |
| 5. Logical Form and Language                 | Stanford Encyclopedia of Philosophy: Logical Forms  |                       |
|  |   | <b>March 26, 2015</b> |
| 6. Fallacies and Biases                      | Copi et al., <i>Introduction to Logic</i> – Chapter 4<br><b>Exercises 3 (Fallacies): April 13, 2015</b>   |                       |
|  |   | <b>March 31, 2015</b> |
| 7. Fallacies and Biases:<br>– Applications   | OPTIONAL READINGS: Baron, J., <i>Thinking and Deciding</i> – Chapters 1 and 2.  |                       |
|  |   | <b>April 02, 2015</b> |
| 8. Reflective Equilibrium<br>and Intuitions  | Daniels, N., ‘Wide Reflective Equilibrium and Theory Acceptance in Ethics’<br>Knobe, J., ‘Experimental Philosophy’                                    |                       |
|  |   | <b>April 07, 2015</b> |
| 9. Thoughts Experiments                      | Häggqvist, S., <i>Thought Experiments in Philosophy</i> – Chapters 5,8,9  |                       |
|  |   | <b>April 09, 2015</b> |
| 10. Formal Logic – Modality                  | Girle, R., <i>Modal Logics and Philosophy</i> – Chapters 1,2,3<br><b>Exercises 3 (Fallacies): April 13, 2015</b>                                      |                       |
|  |   | <b>April 14, 2015</b> |
| 11. Causal Reasoning                         | Copi et al., <i>Introduction to Logic</i> – Chapter 12  |                       |
|  |   | <b>April 16, 2015</b> |
| 12. Probability                              | Hacking, J., <i>An Introduction to Probability and Inductive Logic</i> – Chapters 3 and 4<br><b>Exercises 4 (Analyzing Arguments): April 20, 2015</b> |                       |
|  |   | <b>April 21, 2015</b> |
| 13. Fallacies of Probability                 | Hacking, J., <i>An Introduction to Probability and Inductive Logic</i> – Chapters 5 and 6<br><b>Exercises 5 (Probability): April 23, 2015</b>         |                       |
|  |   | <b>April 28</b>       |
| 14. Game Theory                              | Binmore, K., <i>Game Theory. A Very Short Introduction</i> – Chapters 1 and 2<br><b>Exercises 6 (Recap): April 27, 2015</b>                           |                       |
|  |   | <b>April 30</b>       |
| 15. Exam                                     |   |                       |