

Course Logic and Formal Dialectic

University of Lugano, April 27-30, 2009

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Course description

This course is meant to enable you to appreciate the links between formal logic (as concerned with the theory of reasoning) and theory of argumentation. In particular you are to get acquainted with formal dialectic, a two-person game-like approach to both logic and argumentation studies with potential for bridging the gap between the two. It is not assumed that you studied logic before. But the course may also appeal to you, if you did.

A crash course to gain or refresh knowledge of elementary propositional and predicate logic will occupy a substantial part of our program. But how can one, in barely four days, master a subject that usually fills up a semester course? It can be done, if we work hard at it and work together. Those that are a bit familiar with logic should help the others, thus getting a better mastery themselves and at the same time learning fresh approaches (semantic tableaux, dialogical tableaux). Thus all will advance.

But, even so, we cannot start from scratch. Our first meeting on April 27th must be preceded with a preparatory reading of a number of sections from our textbook. In the course we shall discuss those sections; so write down your comments and questions when doing the reading.

The crash course will be about standard classical logic — and is in that respect quite regular — but also uses the method of semantic tableaux, which is not so common in introductory courses. Semantic tableaux, however, are closely related to dialogical tableaux and hence to formal dialectic. Formal dialectic will be explained and discussed on days three and four, using examples that connect with the semantic tableaux studied earlier in the course. There will also be a reader with some articles on the subject.

Classes will consist of a mixture of lecturing, discussions, and working out exercises. At the end of day two, there will be a small written test on propositional logic; at the end of day three, there will be one on predicate logic. Each test will be discussed on the following day.

The course will be concluded by an essay (about 3000 words) on a subject connected with formal dialectic, to be submitted before the end of May. You will receive some comment on your essay by the end of June.

This is the book you need to buy and partially study before classes start:

Wilfrid Hodges, *Logic* (2nd edition). London, etc.: Penguin Books, 2001. ISBN 0-141-003-146.

The sections we are going to read are: 1, 2, 3, 4, 5, 6, 7, 8, **9**, **10**, **11**, **16**, **17**, 18, 19, **20**, **21**, 22, 23, **26**, 30, **34**, **35**, 37, **39**, **40** (127 pages in total).

Those printed in bold type (and underlined) are core sections that must be carefully studied. You may go faster when reading the other sections. If you cannot read all before classes start, you could settle for less; for instance, you could defer reading 22, 23, 37, 39, and 40 (together 30 pages). It is not realistic to assume that you can read all sections in between classes!