Course description

Elementary
Symbolic
Logic
(PHIL 2110)

Winter 2010

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Content

Understanding a statement requires knowing what would have to be the case for it to be true (in jargon, its "truth condition"). Life is complex enough that we often deal with several statements at once: different things different people have said, or that one person has said. Understanding several statements at once requires knowing the *relations* among their truth conditions. Logic helps with this, because logical symbolism expresses these relations precisely and unambiguously, whereas a natural language like English often obscures them with vagueness, ambiguity or rhetorical colouring.

Our primary aims in this course are to learn how to translate statements in English to and from statements in logical symbolism, and to learn how to compute truth-conditional relationships among statements in logical symbolism. We will do this using two separate logical symbolisms. The first is *propositional*, meaning that the simplest units represented are complete statements. The second is *quantificational*, meaning that the simplest units represented are quantifiers and predicates. In the first symbolism we can represent how the truth of "John is tall and Susan is happy" requires that of "John is tall"—and similarly for other, more complex relations among the truth conditions of different statements. In the second symbolism we can represent how the truth of "All dogs bark" requires that of "Anyone who owns a dog owns something that barks" and so on.

The benefit of a course in logic is that by seeing truth-conditional relations in a language designed to express them as clearly as possible, you get better at discerning and articulating them in English. This helps you to understand what others say and to express what you want to say.

Work

Each student will

- complete 9 weekly assignments;
- write two tests
- write the final examination.

For a good grade, the best routine is to

- come to the class, asking a question if something is not well explained;
- carefully read and work through the corresponding pages in the textbook;
- tackle relevant exercises at the back of the textbook;
- make a note, if a difficulty arises, so that you can remember to ask about it at the start of the next class.

Textbook

Deductive Logic by Warren Goldfarb. Hackett Publishing (ISBN 978-0-87220-660-1).

Lectures

Monday, Wednesday and Friday, 11:30am–12:20pm in Animal Science and Nutrition 156.

Supported Learning Group

This course participates in the Supported Learning Groups program. Group study sessions will be led by Eric Smiley.

Grading

Item	Value
Weekly assignments (all are graded, best 7 count)	7 × 6% = 42%
Tests	2 × 14% = 28%
Final exam	30%