MW 5:00-6:15 | **Introduction to Logic** | Phil-151
Car Barn 309 | | Fall 2015

Instructor Information:

Ben Elzinga
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Office Hours:
TBD

Course Description:

This course is a general introduction to formal logic. In it, you will learn how to translate sentences from ordinary English into sentences of symbolic logic, and how to construct valid arguments using basic rules of inference. We will begin by considering basic arguments of truth-functional logic, in which some propositions are regarded as simple, while others are negations, conjunctions, disjunctions, or conditionals of these simple ones. Once we have a handle on how to symbolize English sentences and how to construct valid proofs, we will move on to the first-order predicate calculus, in which simple propositions will be further analyzed in terms of their parts. Again, we will see how to symbolize ordinary English sentences, and how to construct arguments in a rule-governed system.

Course Goals:

-To understand the scope and applicability of formal logic
-To learn how to discern the logical form of sentences of natural languages like English
-To learn how to demonstrate the validity of logical arguments, using several different means, in several different logical systems
-To prepare students for more advanced work in logic

Textbook:

Hardegree, Gary M., Symbolic Logic: A First Course (4th Edition)
ISBN: 0-07-803981-9
Available online: http://courses.umass.edu/phil110-gmh/text.htm

Assessment:

4 Exams, each worth 25% of your final grade

Exam Information:

There will be a total of six exams, as follows:

Exams 1-4 are regular period exams; for dates, see schedule.
Exams 5-6 are optional exams, scheduled during the two-hour final exam period that has been assigned to us (Dec 15th, 4-6pm).

If you take exam 5, then your lowest score from exams 1, 3, and 5 will be dropped. If you take exam 6, then your lowest score from exams 2, 4, and 6 will be dropped.

There are no make-up exams. Exam 5 serves as the make-up for 1 or 3 and exam 6 serves as the make-up for 2 or 4.

All exams are open-book and open-notes. However, no computers, tablets, or e-readers or phones will be allowed.

Honor Code:

Students found to be in violation with the honor code will be reported to the Honor Council and will receive a failing grade on the exam, or in the course, or worse, depending on the severity of the infraction.

MW 5:00-6:15 Car Barn 309		**Tentative Schedule**		Phil-151 Fall 2015
Class	**Date**	**Topic**	**Readings**	**Exercises**
1	9/2	Introduction		
	9/7	**Labor Day - No Class**		
2	9/9	The Basics	Chapter 1	1A, 1B, 1C (1-5)
3	9/14	Truth-Functional Connectives	Chapter 2	2A (1-10, 25), 2B (1-11, 22), 2C (1-5)
4	9/16	Validity	Chapter 3	3A (1-5), 3B (1-10), 3C (1-10), 3D (1-10)
5	9/21	Translating the Connectives	4.1-4.17	4A, 4B (21-28)
6	9/23	Necessary & Sufficient Conditions	4.18-4.23	4B (29-40), 4C
7	9/28	Translating Complex Statements	4.24	4D
8	9/30	**EXAM 1**		
9	10/5	Simple Derivations	5.1-5.5	5A
10	10/7	Rules of Derivation	5.6-5.8	5B (1-10), 5C
	10/12	**Columbus Day - No Class**		
11	10/14	Strategies for Derivations I	5.9-5.10	5D, 5E (51-59, 70)
12	10/19	Strategies for Derivations II	5.11-5.12	5F
13	10/21	Strategies for Derivations III	5.13-5.14	5G
14	10/26	Review Day		5H
15	10/28	**EXAM 2**		
16	11/2	Predicates & Quantifiers	6.1-6.10	6A, 6B (21-30), 6C (41-50), 6D (61-65)
17	11/4	Translation Tips I	6.11-6.16	6E (71-80), 6F
18	11/9	Translation Tips II	6.17-6.20	6G, 6H, 6I
19	11/11	Polyadic Quantification	7.1-7.3	7A, 7B
20	11/16	Quantifier Specification	7.4-7.5	7C, 7D (51-70), 7E (81-100)
21	11/18	**EXAM 3**		
22	11/23	First Rules of Predicate Logic	8.1-8.7, 8.11	8A, 8B
	11/25	**Thanksgiving - No Class**		
23	11/30	More Rules of Predicate Logic	8.8-8.9	8C, 8D
24	12/2	Strategies for Derivation	8.10, 8.12	8E, 8F
25	12/7	Review	8.13-8.14	8G, 8H
26	12/9	**EXAM 4**		
27	12/15 4-6pm	**EXAMS 5-6**		