COURSE — Logic (phil ua-70)

INSTRUCTOR — J. Dmitri Gallow
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MEETING TIMES — Tuesdays and Thursdays, 11:00–12:15
Room 369, Global Center for Academic and Spiritual Life

OFFICE HOURS — Mondays, 13:00–15:00, and by appointment
5 Washington Place, Room 409

COURSE GOALS — People often attempt to persuade one another by making *arguments—i.e.*, providing reasons to believe that some claim is true. Figuring out what to believe about a wide variety of subjects requires you to be able to evaluate these arguments, to figure out which are good and which are bad. The study of which arguments are good and which are bad (and *why*) is known as 'logic'. In this course, we will learn several logical theories. Along the way, we will also learn to recognize and diagnose some common informal fallacies and to reason with Venn diagrams.

COURSE TEXT — Unfortunately, you are going to have to either purchase Patrick J. Hurley's inaptly named 700-page tome *A Concise Introduction to Logic* (12th edition), or (better) purchase online access to the book and the online *aplia* software (instructions are included at the end of the syllabus). Without this software, you will not be able to submit your problem sets.

EVAULATION — Your final grade in this course will be determined by 4 components:

Problem Sets	30%
In-class Exercises	10%
Midterm	30%
Final	30%

At ten points throughout the course, you will be asked to complete a problem set on the recently covered material. Many of these will be submitted online, through *aplia*. You are allowed, and even encouraged, to work through these problems with other students in the course. However, be sure to not fall into the trap of simply copying the answers of your fellow students. The problems sets are *for your benefit*, to help you learn the material. If you simply copy the homework of your fellow students, you'll be in a bad position for the in class exercises, midterm, and final, which make up a much larger percentage of your final grade.

Frequently, you will be given exercises to complete in class on the material we are covering. If you don't attend, of course, you will not be able to complete these assignments.

There will be an in-class midterm on Thursday, 4/2. The midterm will cover the material covered up to 3/26. I will provide a practice midterm at least a week ahead of time. There will be a final on 5/14, from 10:00–11:50. The final will be cumulative, covering everything in the course. I will provide a practice final at least a week ahead of time.

SCHEDULE

January 29: Course Intro and Basic Concepts of Logic

Hurley, §1.1–1.2
Rosenberg, pp. 13–20

February 3: Basic Concepts of Logic, day 2

Hurley, §1.3–1.4

February 10: Basic Concepts of Logic, day 3

Hurley, §1.5–1.6

February 12: Dialectics

Rosenberg, pp. 20–24
problem set 1 due

February 17: Informal Fallacies, day 1

Howard-Snyder et al. §4.1

February 19: Informal Fallacies, day 2

Howard-Snyder et al. §4.2

February 24: Propositional Logic, syntax

Hurley, §6.1–6.2
problem set 2 due

February 26: Propositional Logic, semantics

Hurley, §6.3

March 3: Propositional Logic: Truth Tables and Validity

Hurley, §6.4
problem set 3 due

March 5: Propositional Logic: Tautologies, Consistency, and Equivalence

Hurley, §6.6

March 10: Propositional Logic Derivations: Rules of Implication

Hurley, §7.1–7.2
problem set 4 due

March 12: Propositional Logic Derivations: Rules of Replacement

Hurley, §7.3–7.4

March 24: Propositional Logic Derivations: Conditional & Indirect Proof

Hurley, §7.5–7.6
problem set 5 due

March 26: Propositional Logic Derivations: Tautologies, Consistency, & Equivalence

Hurley, §7.7

SCHEDULE (CON'T)

March 31: Correctness/Completeness of Propositional Logic

problem set 6 due

April 2: **Midterm** (covers material up to March 26)

optional derivation challenge due

April 7: Categorical Propositions

HURLEY, §4.1–4.2

April 9: Categorical Syllogisms & Venn Diagrams

HURLEY, §4.3

April 14: Quantificational Logic: Syntax

HURLEY, §8.1
problem set 7 due

April 16: Quantificational Logic: Semantics

HURLEY, §8.1

April 21: Quantificational Logic: Validity, Tautology, Equivalence, and Consistency

HURLEY, §8.5
problem set 8 due

April 23: Quantificational Logic: Derivations, day 1

HURLEY, §8.2

April 28: Quantificational Logic Derivations, day 2

HURLEY, §8.3–8.4
problem set 9 due

April 30: Quantificational Logic: Relational Predicates and Overlapping Quantifiers

HURLEY, §8.6

May 5: Quantificational Logic with Identity

HURLEY, §8.7
problem set 10 due

May 7: Quantificational Logic with Identity, day 2

HURLEY, §8.7

May 14: **Final**

from 10:00–11:50

ACADEMIC INTEGRITY

Cheating and Plagiarism will not be tolerated. If you are found cheating on any assignment, you will automatically receive a failing grade for the course.

REFERENCES

Howard-Snyder, Frances, Daniel Howard-Snyder & Ryan Wasserman. 2013. *The Power of Logic*. McGraw-Hill, New York, fifth edn. [2]

Hurley, Patrick J. 2015. *A Concise Introduction to Logic*. Cengage Learning, Stamford, 12th edn. [2], [3]

Rosenberg, Jay F. 1978. *The Practice of Philosophy: A Handbook for Beginners*. Prentice-Hall, Englewood Cliffs, nj, third edn. [2]

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Logic (PHIL UA-70)

Instructor: Jeffrey D Gallow
Start Date: 01/20/2015

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