

PHIL-UA 70 002: Logic  
SYLLABUS

Mondays and Wednesdays, 9:30a.m.-10:45a.m.  
Location: GCASL 383

Professor: Eric Tracy  
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Office Hours: Over e-mail or Zoom, by appointment

**Course Overview**

An introduction to the basic techniques of symbolic logic. Students learn how to put arguments from ordinary language into symbols, how to construct derivations within a formal system, and how to ascertain validity using truth tables or models.

We will study sentential and predicate logic using the *Language, Proof, and Logic* (2<sup>nd</sup> Edition) text and software package by David Barker-Plummer, Jon Barwise, and John Etchemendy.

## Course Materials

Students are required to obtain the following text and software package:

- *Language, Proof, and Logic* (2<sup>nd</sup> Edition)  
Barker-Plummer, Barwise, and Etchemendy  
ISBN: 9781575866321

NOTE: This text and software package requires students to use a unique Registration ID associated with their package. Thus, you are advised to purchase a new copy of the package. You will not be able to make use of your text for this course if your Registration ID has already been claimed by a different original user.

## Difficulty

This course is, in its way, introductory and assumes no prior background in philosophy. However, the material will be challenging. Doing well in the course requires sustained engagement with the ideas, systems, principles and arguments we discuss, careful and sustained reading of challenging material, and the development and exercise of the skills that will be tested on your assignments. These skills include translating between English and First Order Logic, deriving formulas in a formal system, and using models and truth tables to characterize and assess the validity of logical constructions.

To excel in this course, you should expect to:

- Do all assigned readings *and engage* (take notes, practice, etc.)
- Attend lecture *and engage* (take notes, ask questions, etc.)
- Work hard on assignments (and submit them on time)

## Course Requirements

1. Weekly Homework Assignments
2. 3 Exams

The final grade for the course will be determined as follows:

- *Homework Assignments*: 20%
- *Exam 1*: 25%
- *Exam 2*: 25%
- *Exam 3*: 30%

## **Homework Assignments**

Your assignments will need to be completed using the software associated with *Language, Proof, and Logic* and submitted to the Grade Grinder via the software program *Submit*, unless explicitly noted otherwise.

Assignments are due Sundays at 11:59 p.m., starting February 2<sup>nd</sup>. You are strongly advised to attempt to complete the homework before the relevant class meeting, after doing the assigned reading, but the week's homework problems can be submitted until the Sunday after the lectures. A detailed schedule of the assignments is provided below.

No late homework assignments will be accepted under any circumstances.

For homework submission, you will need to use your Book ID, name, and e-mail address and the following instructor info:

Name: Eric Tracy

E-mail: [ericvtracy@g.ucla.edu](mailto:ericvtracy@g.ucla.edu)

Though it is recommended that you complete all homework problems, only those in bold will contribute to the homework grade. Homework problems that are turned in and completely correct will earn 100% of the possible points. Homework problems that are turned in but are incorrect will earn 80% of the possible points.

## **Accommodations**

Students needing an academic accommodation because of a disability should notify the Henry and Lucy Moses Center for Students with Disabilities and the instructor within the first two weeks of term.

The Moses Center's main office is at 726 Broadway on the 3<sup>rd</sup> floor. Its phone number is (212) 998-4980.

## **Academic Integrity**

Students are responsible for abiding by NYU's and CAS's policies regarding academic and intellectual integrity.

Any suspected plagiarism, cheating, or academic dishonesty will be reported.

Course Schedule (subject to change)

Date	Topic	Reading	Homework
1/27 M	Introduction	p. 1-10	
1/29 W	Atomic Sentences	1.1-1.4.	<b>1.2, 1.3, 1.4, 1.5</b>
2/3 M	Atomic Sentences	2.1, 2.5	Handout
2/5 W	Boolean Connectives	3.1-3.7	3.2, <b>3.3</b> , 3.6, <b>3.7</b> , 3.9, 3.23
2/10 M	Boolean Connectives	4.1	<b>4.2</b> , 4.4, <b>4.5</b> , 4.6, <b>4.7</b>
2/12 W	Boolean Connectives	4.2-4.3	<b>4.12</b> , 4.13, 4.14, <b>4.20</b> , 4.21
2/19 W	Review		Handout
2/24 M	Exam		
2/26 W	The Logic of Boolean Connectives	2.2-4, 4.4, 5.1-3	<b>2.17</b> , 2.20, 5.1, 5.5, 5.7
3/2 M	Proofs with Boolean Connectives	6.1, 6.2	<b>6.3, 6.4, 6.5, 6.6</b>
3/4 W	Boolean Connectives	6.3	<b>6.9, 6.10</b> , 6.11, 6.12
3/9 M	Boolean Connectives	6.4-6.6	<b>6.18</b> , 6.19, <b>6.20</b> , 6.28, 6.29
3/11 W	Conditionals	7.1, 7.2	<b>7.1</b> , 7.2, 7.10, <b>7.12</b> , 7.13
3/23 M	Logic of Conditionals	8.1, 8.2	<b>8.18, 8.19</b> , 8.20, <b>8.21</b>
3/25 W	Logic of Conditionals	8.4	8.44, 8.45, <b>8.46</b> , 8.48
3/30 M	Logic of Conditionals		8.49, <b>8.50, 8.51</b> , 8.52, 8.53
4/1 W	Review		Handout
4/6 M	Review		Handout
4/8 W	Exam		
4/13 M	Quantifiers	9.1-9.4	9.3, <b>9.5</b> ,
4/15 W	Quantifiers	9.5-6	9.12, <b>9.13</b> , 9.16, <b>9.17</b>
4/20 M	The Logic of Quantifiers	9.7, 10.3-4	
4/22 W	Multiple Quantifiers	11.1-5	<b>11.4</b> , 11.9, 11.17
4/27 M	NO CLASS		
4/29 W	Proofs with Quantifiers	12.1-4	
5/4 M	Proofs with Quantifiers	13.1-2	<b>13.2, 13.3</b> , 13.4, 13.11, <b>13.12</b> , 13.13, 13.14
5/6 W	Proofs with Quantifiers	13.3, 13.5	<b>13.23</b> , 13.33, 13.35, <b>13.43</b>
5/11 M	Numerical Quantification	14.1-2	<b>14.3, 14.4, 14.10</b>
TBD	Final Exam (Take-Home)		