### Department of Social Sciences and Critical Studies School of Liberal Arts and Sciences Pratt Institute Fall 2013

Course Syllabus

# LOGIC

PHIL 301, Credits: 3 Monday 2-4:50pm in North Hall 112

Instructor: Eric Godoy Email: EricSGodoy@gmail.com Office Location: DeKalb 103 Skype: EricSGodoy Office Hours: noon-2:00pm Twitter: @GodoyEricS (#PrattLogic)

# **Course Description**

Catalog Description: An elementary introduction to logical thinking. One-third of the course is devoted to problems of language and semantics.

Section Description: The study of logic attunes us to the structure of our thoughts and judgments about the world. The brick and mortar of this structure is argument and reason. We will learn the rules of constructing good arguments, better understand why bad arguments fail to stand, and learn to detect weak points in valid arguments. Much logic is intuitive—you use it all the time and probably wouldn't have made it far today without it. Yet many times we develop bad habits of thought. By learning to identify common errors and with practice constructing and deconstructing sound arguments, the study of formal logic will help clarify your thinking and make you a better reasoner.

#### **Course Goals:**

- Gain an understanding of elementary formal logic, its branches, and its uses in everyday arguments.
- Develop your abilities to critically evaluate arguments for validity and soundness.
- Develop an understanding of how arguments are constructed and establish a firmer grounding for your own judgments and beliefs about the world.
- Recognize the special role of reason and persuasion techniques in science, advertising, writing, and speech.

### **Learning Objectives:**

- Distinguish between soundness and validity and explain why each is important for good arguments.
- Translate arguments between symbolic logical syntax and everyday language.
- Identify common logical fallacies and equivalencies.
- Solve proofs with basic propositional logic and its laws, with truth tables, "star", trees, and other methods.
- Work with modal, quantificational, and syllogistic logic.

# **Course Requirements**

### Course book and readings

- Required textbook: *Introduction to Logic*, Harry J. Gensler. 2<sup>nd</sup> edition (2010). ISBN-13: 9780415996518. Order it today!
- LMS Various articles, chapters, and websites will be posted here.
- You are expected to keep current with extra-class discussions via LMS, email, and Twitter (#LPF13, short for Logic Pratt Fall 2013).

#### **Course Calendar**

The calendar below indicates the topics and chapters we will discuss each week as well as test dates. You are not expected to read the textbook chapters in advance, but you may find it helpful to do so. Use the text to help you with assignments and to review for tests and quizzes.

### Before class – assignments due

An assignment is due before the beginning every class. Unless otherwise specified, you will hand this in by email before class begins. Your assignments are due even if you miss class. To calculate your final grade, I will drop your lowest assignment grade.

## First 15 minutes of class – quizzes

Except for test days, each class begins with a short quiz on the assignment. In the first five minutes of class, you will have a chance to ask questions before we start the quiz. The quizzes will be collected 15 minutes after class begins. If you are late, you may miss the review and/or the quiz. To calculate your final grade, I will drop your lowest grade and double your highest grade.

## The rest of class—lessons, practice, assignments

During class, we will review quizzes, work through problem sets as a class, in breakout groups, or individually. We will review the key concepts of the chapter or sections and begin some of the assignments problems together. At the end of class, the assignments due for the next class is announced and posted on LMS.

#### **Tests**

There are four hour-long tests given throughout the semester. Tests are cumulative insofar as each chapter assumes knowledge of the previous chapters. However, tests will focus on the most recent material covered in class since the last test. I will add extra points to your test grade for each LogiCola assignment you do above a difficulty level of 7. You lose points for each difficulty level below 7.

**Attendance & Participation:** Since we meet only once each week, it is extremely important that you attend every session, arrive on time, and actively contribute to the class. This means you should:

- Come prepared with a copy of the text or readings, your notebooks, personal notes, and whatever is required to preform your role for the week.
- Contribute your fair share of work during breakout sessions. If you don't understand, then you demonstrate effort by asking questions. It is highly unlikely that no one else will benefit from your question.
- During class, you should take notes, raise questions, and participate in the discussion.

- You also should follow all course and university policies discussed below.
- Check and respond to course email frequently. Check LMS frequently for updates.

I do not make a distinction between kinds of absence (i.e., excused, unexcused). I simply allow everyone to miss one class without penalty. Further absences will lower your participation and quiz grades. You may contact me the day your absence to make up some for your lost quiz and participation points. If you are going to miss a test, you must either contact me in advance, or before the end of the test day to schedule a make up. No exceptions.

**Grading:** I will calculate your final grade based on the following breakdown and grade scale:

Breakdown		
Assignments	120	
(x12)	(or 10 points each)	
Quizzes	50	
(x10)	(or 5 points each)	
Tests (x4)	400 (or 100 points	
	each)	
Participation	180	
TOTAL	750	

	Final (	Grade	
A	100-93%	C+	79-77%
A-	92-90%	С	76-73%
B+	89-87%	C-	72-68%
В	86-83%	D	67-60%
В-	82-80%	F	59-0%

### **Policies**

Institute-wide policies listed in the "Community Standards" section of the Pratt Bulletin

Absolute integrity is expected of every member of the Pratt Community in all academic matters, particularly with regard to academic honesty. The latter includes plagiarism and cheating. In addition, the continued registration of any student is contingent upon regular attendance, the quality of work and proper conduct. Irregular class attendance, neglect of work, failure to comply with Institute rules and official notices or conduct not consistent with general good order are regarded as sufficient reasons for dismissal. The faculty member and/or the Academic Integrity Board adjudicate cases of academic infractions. The Board does not hear grade disputes because these receive a final review at the level of the school dean. Students and faculty are expected to be familiar with and observe academic standards and policies as well as the procedures to address infractions or resolve disputes. A full description of these policies and procedures may be found in the Student Handbook and the Bulletin.

Academic Integrity Code: When a student submits any work for academic credit, he/she makes an implicit claim that the work is wholly his/her own, done without the assistance of any person or source not explicitly noted, and that the work has not previously been submitted for academic credit in any area. Students are free to study and work together on homework assignments unless specifically asked not to by the instructor. In addition, students, especially international students, are encouraged to seek the editorial assistance they may need for writing assignments, term papers and theses. Our Writing and Tutorial Center staff is always available to clarify issues of academic standards and to provide writing and tutorial help for all Pratt students. In the case of examinations (tests, quizzes, etc.), the student also implicitly claims that he/she has obtained no prior unauthorized information about the examination, and neither gives nor obtains any assistance during the examination. Moreover, a student shall not prevent others from completing their work.

**Plagiarism:** Plagiarism means presenting, as one's own, the words, the work, information, or the opinions of someone else. It is dishonest, since the plagiarist offers, as his/her own, for credit, the language, or information, or thought for which he/she deserves no credit.

Types of plagiarism include: (1) Including any material from any source other than yourself in a paper or project without proper attribution. This includes material from the Internet, books, papers or projects by other students, and the media. (2) Using your own work to fulfill requirements for more than one course. (3) The extensive use of the ideas of others in your work without proper attribution. (4) Turning in work done by another person, downloaded from the web, purchased from any agency or supplier, as ones own.

Plagiarism occurs when one uses the exact language of someone else without putting the quoted material in quotation marks and giving its source. The method for documenting sources and references is standard: You must refer to 1 of 2 official guidebooks for the writing of academic work: either the MLA Handbook for Writers of Research Papers or the Chicago Manual of Style. Make sure you have a copy on your desk and refer to it. Any paper submitted that does not use proper referencing will not be marked.

Attendance & Conduct: The continued registration of any student is contingent upon regular attendance, the quality of work and proper conduct. Irregular attendance, neglect of work, failure to comply with Institute rules and official notices or conduct not consistent with general good order are regarded as sufficient reasons for dismissal. There are no unexcused absences or cuts. Students are expected to attend all classes. Any unexcused absences may affect the final grade. Three unexcused absences may result in course failure at the discretion of the instructor.

Late work and extra credit: Unless otherwise specified, work handed in late will receive 80% credit (highest grade B-). I won't accept work more than two weeks after it's due. There are only two ways to get extra credit: If we have room for it, you may sign up for two additional reporters jobs, or you can attempt to help another group with their On Air activities. No more than five extra percentage points can be added to your final grade this way. If you miss a class or do poorly on the midterm, you should come see me about extra credit as soon as possible.

**Difficulties with requirements:** Deadlines and other course requirements are announced at the beginning of the term. If you foresee a problem meeting any of the requirements, notice a scheduling conflict, are having trouble following the lectures and readings, or are having any other difficulties, then you should come see me as early as possible. I'm willing to help you work through any difficulties, but you have to come talk to me so that I know about them.

Disabilities: If you have a physical or learning disability, ADD/ADHD, chronic disease, or physical condition that you feel I should know about, please contact both me and Mai McDonald at 718-636-3711, to discuss your needs and how we can best serve you. In order to receive classroom accommodations and other services, you must have documentation of your disability on file in our office. Your records will be kept completely confidential. For more information, please see the Pratt Institute Accommodations for Students with Disabilities brochure.

Writing and tutorial center: The Writing and Tutorial Center offers free tutoring in English, math, art history, history, and science. Students can sign up for regularly scheduled individual

appointments at the beginning of each semester. Drop-in tutoring is also available. Tutors in the Center consist of faculty participants, professional tutors, and student peer tutors. Students seeking help should come by the Center, North Hall 101 (opposite the bank), or call 718-636-3459 to schedule an appointment.

LMS: I expect you to frequently check the course website on LMS to download readings, check guidelines for assignments, and check course announcements. \*Important\*: If you should have any problems with the LMS, immediately contact the Help Desk in the basement of the Engineering Building (x3765 or helpdesk@pratt.edu). In order for me to verify claims of LMS outages, I must hear from you when the LMS problem occurs, not hours or days later.

**Communication:** I expected that you will frequently check your Pratt e-mail address for official course communication. In turn, I will do the same. In most cases, I can respond to email within a few hours. You can also stay in touch via Twitter, Skype, and office hours.

## Calendar

1. Aug. 26	Ch. 1; review of syllabus; intro. to course; pre-quiz; intro. to LogiCola
2. Sep. 2	No class
3. Sep. 9	Ch. 2 Syllogistic reasoning
4. Sep. 16	Ch. 6 Basic propositional logic; review for 1st test
5. Sep. 23	First test; continue propositional logic
6. Sep. 30	Ch. 7 Propositional proofs
7. Oct. 7	Continue propositional proofs
8. Oct. 14	Ch. 8 Basic quantificational logic; review for 2 <sup>nd</sup> test
9. Oct. 21	Second test; Ch.3 Meaning and definitions
10. Oct. 28	Continue meaning and definitions; introduction to fallacies
11. Nov. 4	Ch. 4 Fallacies and argumentation
12. Nov. 11	Ch. 10 Basic modal logic; review for 3 <sup>rd</sup> test
13. Nov. 18	Third test; introduction to arguments and advertising
14. Nov. 25	Arguments and advertising (LMS)
15. Dec. 2	Scientific arguments; written & oral arguments (LMS); review for 4th test
16. Dec. 9	Fourth test