# **Introduction to Logic, Spring 2013**

Humanities Hall 201, Mondays, Wednesdays & Fridays, 1:15PM-2:20PM

Instructor: Apaar Kumar

Office Hours: MWF 4:50PM-5:50PM, Humanities Hall 205

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# **Course Description**

If we are concerned with reasoning well (as most of us are in both our private and our professional lives), we should be willing to make an attempt to learn from the efforts of logicians who have tried to illuminate the principles of reasoning and developed techniques for evaluating the correctness of a rational argument. In this course, we will make such an attempt in order (hopefully) to learn to think more clearly and to acquire greater skill in distinguishing between convincing and unconvincing arguments.

#### **Text**

Irving Copi and Carl Cohen, *Introduction to Logic*, 14th edition. New Jersey: Pearson, Prentice Hall, 2009 (available at the Oxford Bookstore).

### **Honor Code**

It is assumed that you are familiar with the honor code and understand the implications of academic misconduct. Cheating on exams and quizzes will not be tolerated. If you are caught cheating on the quizzes and exams, you will be referred to the honor council.

# **Absence Policy**

You will not be penalized for absences if there is a valid reason and if you have informed me in advance. In cases of illness, a letter from the Student Health Center is required. Three unexcused absences will cost you a letter grade.

### **Course Requirements**

**I Reading:** As is usually the case, you will read the material in advance before we discuss it in class – so, for instance, when you come to class on January 18<sup>th</sup>, you will have read Copi and Cohen, pp. 4-9 & 12-21.

**Note:** The pace of the course will be dictated by our progress in class, and the syllabus may have to be changed to accommodate it. New versions of the syllabus (if required) will be sent to you in advance via the Blackboard conference. **Checking the Blackboard conference is your responsibility.** 

- **II Homework:** All homework is to be sent to me via email to the following address: <a href="mailto:akumar6@emory.edu">akumar6@emory.edu</a> with the subject heading "Logic-1:15." I will assign two types of homework:
  - (i) Regular Homework: To ensure that you come prepared to class, I will assign homework after every class (via the Blackboard conference). You will have to send me this work via email to the following address: <a href="mailto:akumar6@emory.edu">akumar6@emory.edu</a> with the subject heading "Logic-1:15." The homework assigned for a Monday class needs to be sent to me by 8pm on Sunday, the homework assigned for a Wednesday class needs to be sent to me by 8pm on Tuesday, and

the homework assigned for a Friday class needs to be sent to me by 8pm on Thursday. For the most part, homework will be directly related to the reading assigned for a class.

(i) Homework (Pass/Fail): This will consist of sets of problems to be done at home. The difference between (i) and (ii) is that I will post the answers to Homework (Pass/Fail) on the Blackboard conference, while regular homework will not be corrected. The purpose of the HW (Pass/Fail) is to prepare you for quizzes.

**Note:** You may work in groups when you are doing homework. But if I discover that you have copied and pasted someone else's work, all parties involved will be penalized (the penalty could include losing a letter grade).

III Quizzes and Exams: There will be 4 quizzes over the course of the semester, and a final exam. The quizzes will be between 45 to 60 minutes. The point of the quizzes is to prepare you for the final exam. The cumulative final exam will be 3 hours. There will be no make-up quizzes or exams unless you have a genuine reason for missing them (refer to Absence policy above). The scheduling of the quizzes is subject to change depending on our progress in class (refer to Blackboard)

**Note:** There will be no make-up quizzes or exams unless you have a genuine reason for missing them (refer to Absence Policy above).

# Grading

Overall grades for the course will be calculated according to the following 1000-point scale:

A =	950-1000	B- =	800-832	D =	600-699
A- =	900-949	C+ =	767-799	F =	Less than 600
B+ =	867-899	C =	733-766		
B =	833-866	C- =	700-732		

The grade distribution is as follows:

Final Exam: 40%
Quizzes: 40%
Homework: 15%
Class participation: 5%

**Grading Policy:** You will receive a proper grade on the quizzes and the two exams. However, the homework will be subject to negative grading. You will lose 10 points each time you fail to send me regular homework, and you will lose 25 points each time you fail to send me Homework (Pass/Fail). If you are able to send in all homework on time throughout the semester, then you will secure 15% of the grade. Since it does not matter if the solutions to the homework problems are correct or not as long as it is CLEAR that you have done it yourself and have genuinely attempted to solve the problem, this is an easy way of securing 15% of your grade!

#### Note

"Student work submitted as part of this course may be reviewed by Oxford College and Emory College faculty and staff for the purposes of improving instruction and enhancing Emory education."

# **Reading Schedule**

January 16	Introduction			
	Key Concepts			
January 18	Copi and Cohen, pp. 2-9 & 12-20			
	Homework: pp.9-11: 2, 5, 6, 8, 13; pp. 20-24: 3, 5, 8, 12, 17, 20			
January 21	Martin Luther King, Jr. Day [Holiday]			
January 23	Copi and Cohen, pp. 24-32, 34-36			
January 25	Copi and Cohen, pp. 38-43			
January 28	Copi and Cohen, pp. 64-66, 71-73			
January 30	Copi and Cohen, pp. 75-76			
February 1	Copi and Cohen, pp. 79-86, 86-89			
	Homework (Pass/Fail) Assigned			
February 4	Copi and Cohen, pp. 86-89 (cont.), 89-91, 91-93			
February 6	Copi and Cohen, pp. 94-98			
February 8	Quiz 1			
Fallacies				
February 11	Copi and Cohen, pp. 105-120			
February 13	Copi and Cohen, pp. 105-120 (cont.)			
February 15	Copi and Cohen, pp. 126-133, 134-138			
February 18	Copi and Cohen, pp. 126-133, 134-138 (cont.)			
February 20	Copi and Cohen, pp. 140-148			
February 22	Copi and Cohen, pp. 140-148 (cont.)			
Homework (Pass/Fail) Assigned				
Deduction: Classical Logic				
February 25	Copi and Cohen, Categorical Propositions, pp. 164-169, 170-175, 176-179			
February 27	Copi and Cohen, Categorical Propositions, pp. 180-186			
March 1	Quiz 2			
March 4	Copi and Cohen, Categorical Propositions, pp. 189-195			
March 6	Copi and Cohen, Categorical Syllogisms, pp. 205-209, 210-212			

March 8	Copi and Cohen, Categorical Syllogisms, pp. 213-221				
March 11-15	Spring Break				
March 18	Copi and Cohen, Categorical Syllogisms, pp. 224-229				
March 20	Copi and Cohen, Syllogism in Ordinary Language, pp. 245-248, 249-257				
March 22	Copi and Cohen, Syllogism in Ordinary Language, pp. 249-257 (cont.) & 258-259				
March 25	Copi and Cohen, Syllogism in Ordinary Language, pp. 245-259 (cont.) & 264-266				
March 27	Copi and Cohen, Syllogism in Ordinary Language, pp. 264-266 (cont.)				
	Homework Pass/Fail Assigned				
March 29	Copi and Cohen, Syllogism in Ordinary Language, pp. 272-275, 278-282				
April 1	Copi and Cohen, Syllogism in Ordinary Language, pp. 278-282				
Deduction: Modern Logic					
April 3	Quiz 3				
April 5	Copi and Cohen, Symbolic Logic, pp. 287-297, 333-335				
April 8	Copi and Cohen, Symbolic Logic, pp. 300-308				
April 10	Copi and Cohen, Symbolic Logic, pp. 310-312, 314-322				
April 12	Copi and Cohen, Symbolic Logic, pp. 323-329				
Induction					
April 15	Copi and Cohen, Analogical Reasoning, pp. 444-448, 452-457				
April 17	Copi and Cohen, Analogical Reasoning, pp. 452-457 (cont.) & Causal Reasoning,				
	pp. 470-478				
April 19	Copi and Cohen, Causal Reasoning, pp. 482-484, 488-489 & 491-493				
April 22	Copi and Cohen, Causal Reasoning, pp. 495-497, 501-505				
	Homework Pass/Fail Assigned				
April 24	Copi and Cohen, pp. Science and Hypothesis, pp. 513-532				
April 26	Copi and Cohen, Probability, pp. 539-545, 547-551, 553-558				
April 29	Quiz 4				
May 6	Cumulative Final Exam, 9AM-12PM				