

Introduction to Logic

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

Instructor: Apaar Kumar

Office Hours: MWF 3:45PM-4:45PM, Seney Hall 110

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Content: If we are concerned with reasoning well (as most of us are in both our private and professional lives), we should be willing to make an attempt to learn from the efforts of the 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 to (hopefully) learn to think more clearly and to acquire more skill in distinguishing between convincing and unconvincing arguments.

Text

Copi, Irving and Carl Cohen, *Introduction to Logic*, 14th Edition. New Jersey: Pearson, Prentice Hall, 2011.
(Available at the Oxford Bookstore)

Course Requirements

(1) 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're caught cheating on the quizzes and exams, you will be referred to the honor council.

(2) Absence Policy: You will not be penalized for absences if you have a valid reason for being absent, or if you inform me in advance about missing a class. In cases of illness, a letter from the Student Health Center will be required. Three unexcused absences will cost you a letter grade.

(3) Requirements:

(a) 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 August 31st you will have read Copi and Cohen, pp. 2-9 & 12-20.

(b) To ensure that you come prepared to class, I will assign homework after every class (via the learnlink conference). You will have to send me this work via email to the following address: akumar6@emory.edu 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.

(c) 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 learnlink conference. CHECKING THE LEARNLINK CONFERENCE IS YOUR RESPONSIBILITY.

(d) 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).

(e) You will have to do two types of homework: (i) Regular Homework: You will have to send me homework before every class. You will get credit for honestly doing and sending it on time. It will not matter whether the solution to a problem is correct or not as long as you've sincerely tried to solve it. (ii) Homework (Pass/Fail): A set of problems to be done at home. The difference between (i) and (ii) is that I

will be posting the answers to Homework (Pass/Fail) on the learnlink conference, while I will not be correcting regular homework. The purpose of the HW (Pass/Fail) is to prepare you for the quizzes.

Note: You can work in groups when you are doing homework. But if you copy and paste someone else's work, all parties involved will be penalized (the penalty could include losing a letter grade).

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		

Grading Policy (Homework): While you will receive a proper grade on the quizzes and the two exams, the homework is worth a negative grade. 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 always able to send both 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've done it yourself and genuinely attempted to solve the problem, this is an easy way of securing 15% of your grade!

The grade distribution is as follows:

Final Exam:	40% of the Grade
Quizzes:	40% of the Grade
Homework:	15% of the Grade
Class participation:	5% of the 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

August 29 Introduction

Key Concepts

August 31 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

September 3 Labor Day Holiday

September 5 Copi and Cohen, pp. 24-32, 34-36

September 7 Copi and Cohen, pp. 38-43

September 10 Copi and Cohen, pp. 64-66, 71-73

September 12 Copi and Cohen, pp. 75-76

September 14 Copi and Cohen, pp. 79-86, 86-89

Homework (Pass/Fail) Assigned

September 17 Copi and Cohen, pp. 86-89 (cont.), 89-91, 91-93

September 19 Copi and Cohen, pp. 94-98

September 21 **Quiz 1**

Fallacies

September 24 Copi and Cohen, pp. 105-120

September 26 Copi and Cohen, pp. 105-120 (cont.)

September 28 Copi and Cohen, pp. 126-133, 134-138

October 1 Copi and Cohen, pp. 126-133, 134-138 (cont.)

October 3 Copi and Cohen, pp. 140-148

October 5 Copi and Cohen, pp. 140-148 (cont.)

Homework (Pass/Fail) Assigned

Deduction: Classical Logic

October 8 Copi and Cohen, Categorical Propositions, pp. 164-169, 170-175, 176-179

October 10 Copi and Cohen, Categorical Propositions, pp. 180-186

October 12 Quiz 2

October 15-16 Fall Break

October 17 Copi and Cohen, Categorical Propositions, pp. 189-195

October 19 Copi and Cohen, Categorical Syllogisms, pp. 205-209, 210-212

October 22 Copi and Cohen, Categorical Syllogisms, pp. 213-221

October 24 Copi and Cohen, Categorical Syllogisms, pp. 224-229

October 26 Copi and Cohen, Syllogism in Ordinary Language, pp. 245-248, 249-257

October 29 Copi and Cohen, Syllogism in Ordinary Language, pp. 249-257 (cont.) & 258-259

October 31 Copi and Cohen, Syllogism in Ordinary Language, pp. 245-259 (cont.) & 264-266

November 2 Copi and Cohen, Syllogism in Ordinary Language, pp. 264-266 (cont.)

Homework Pass/Fail Assigned

November 5 Copi and Cohen, Syllogism in Ordinary Language, pp. 272-275, 278-282

November 7 Copi and Cohen, Syllogism in Ordinary Language, pp. 278-282

Deduction: Modern Logic

November 9 **Quiz 3**

November 12 Copi and Cohen, Symbolic Logic, pp. 287-297, 333-335

November 14 Copi and Cohen, Symbolic Logic, pp. 300-308

November 16 Copi and Cohen, Symbolic Logic, pp. 310-312, 314-322

November 19 Copi and Cohen, Symbolic Logic, pp. 323-329

November 21-23 Thanksgiving Recess

Induction

November 26 Copi and Cohen, Analogical Reasoning, pp. 444-448, 452-457

November 28 Copi and Cohen, Analogical Reasoning, pp. 452-457 (cont.) & Causal Reasoning, pp. 470-478

November 30 Copi and Cohen, Causal Reasoning, pp. 482-484, 488-489 & 491-493

December 3 Copi and Cohen, Causal Reasoning, pp. 495-497, 501-505

Homework Pass/Fail Assigned

December 5 Copi and Cohen, pp. Science and Hypothesis, pp. 513-532

December 7 Copi and Cohen, Probability, pp. 539-545, 547-551, 553-558

December 10 **Quiz 4**

December 14 Final Exam, 2PM-5PM