

Introduction to Logic

Tuesdays and Thursdays, 2:30AM-3:45PM

Instructor: Apaar Kumar

Office Hours: Humanities Hall 205, every Tuesday and Thursday, 4:00-5:15 PM

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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 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.

(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 January 19th you will have read Copi and Cohen, pp. 4-9 & 12-21

(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-11:30." The homework assigned for a Tuesday class needs to be sent to me by 8pm on Monday, and the homework assigned for a Thursday class needs to be sent to me by 8pm on Wednesday. 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 3 quizzes over the course of the semester, a mid-term exam and a final exam. The quizzes will be between 30 and 40 minutes each. The mid-term exam will be 75 minutes. 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) 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:	30% of the Grade
Mid-term Exam:	25% of the Grade
Quizzes:	25% of the Grade
Homework:	15% of the Grade
Class participation:	5% of the Grade

(f) 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 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!

Reading Schedule

January 19 Introduction

Key Concepts

January 24 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 26 Copi and Cohen, pp. 24-32, 38-43

January 31 Copi and Cohen, pp., 64-66, 71-73, 75-76

February 2 Copi and Cohen, pp. 79-86, 86-89
Homework (Pass/Fail) Assigned

February 7 Copi and Cohen, 89-91, 91-93, 94-98

Fallacies

February 9 Copi and Cohen, pp. 105-120
Quiz 1

February 14 Copi and Cohen, pp. 126-133, 134-138

February 16 Copi and Cohen, pp. 140-148

Deduction: Classical Logic

February 21 Copi and Cohen, Categorical Propositions, 164-169, 170-175, 176-179

February 23 Copi and Cohen, Categorical Propositions, 180-186
Homework (Pass/Fail) Assigned

February 28 Copi and Cohen, Categorical Propositions, 189-195

March 1 Copi and Cohen, Categorical Syllogisms, 205-209, 210-212
Quiz 2

March 6 Copi and Cohen, Categorical Syllogisms, 213-221

March 8 Copi and Cohen, Categorical Syllogisms, 224-229

March 12-16 Spring Break

March 20 Copi and Cohen, Syllogism in Ordinary Language, pp. 245-248, 249-257
Homework Pass/Fail Assigned

March 22 Copi and Cohen, Syllogism in Ordinary Language, pp. 258-259

March 27 Copi and Cohen, Syllogism in Ordinary Language, pp. 264-266

March 29 **Midterm Examination**

April 3 Copi and Cohen, Syllogism in Ordinary Language, pp. 272-275, 278-282

Deduction: Modern Logic

April 5 Copi and Cohen, Symbolic Logic, pp. 287-297, 333-335

April 10 Copi and Cohen, Symbolic Logic, pp. 300-308, 310-312, 314-322

April 12 Copi and Cohen, Symbolic Logic, pp. 323-328

Induction

April 17 Copi and Cohen, Analogical Reasoning, 444-445, 452-457

April 19 Copi and Cohen, Causal Reasoning, 470-478, 482-484, 488-489
Homework Pass/Fail Assigned

April 24 Copi and Cohen, Causal Reasoning, 491-493, 495-497, 501-505

April 26 Copi and Cohen, Science and Hypothesis, 513-532
Quiz

May 1 Copi and Cohen, Probability, 539-545, 547-551, 553-558

May 3 **Cumulative Final Exam – 9:00 AM-12:00 PM**