

Introduction to Logic

Philosophy 210, Fall 2019

MoWeFr 1:40PM–2:35PM, LC 24

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What the course is about

This is an introduction to modern logic. You will learn how to translate English language sentences into formal languages, and you will learn how to evaluate or demonstrate different properties in the formal language. Unlike sentences in English, sentences in the formal language are precise and unambiguous.

The course covers two formal languages: Sentential Logic (SL) and Quantified Logic (QL). You will learn the strengths and weaknesses of these different systems.

Materials

- The textbook for this course is *forall x*, available in the campus bookstore.
- We will be using the iClicker system for in-class quiz-taking and polling. You can purchase an iClicker remote from the campus bookstore. If you have an old one, that's fine.

You will need to register your remote via Blackboard so as to get credit for your clicker answers.

Policies

- There is no explicit attendance policy, although if you miss class you will be unable to participate in that day's clicker questions.

- Students who will need to miss exam dates for foreseeable reasons should discuss them with the professor at the beginning of the term. If an emergency results in absence, the student should contact the professor as soon as possible.

- Cheating will not be tolerated. Copying answers from another student during an exam, consulting notes on an exam, or using an absent student's iClicker to signal answers are all strictly forbidden. If you are caught doing any of these, you will get a failing grade.

- Note that discussing iClicker questions with your neighbors in class is usually *not* cheating. You are responsible for your own answers, but I encourage you to learn collaboratively.

- Logic sits on the cusp of humanistic and formal disciplines. As such, this course may be used to fulfill the general education requirement for Humanities or for Mathematics. For more about General Education courses, see http://www.albany.edu/undergraduate_bulletin/general_education.html

Requirements and grading

There will be three midterm exams and a final exam. Each component of the course will figure in your final grade:

- 15% clicker quizzes/participation
- 20% first midterm
- 20% second midterm
- 20% third midterm
- 25% final exam

You are responsible for getting the iClicker, registering it, bringing it to class each day, and using it. Not having it with you means not getting credit for that day.

If you can find a substantive error in the textbook, then you are encouraged to point it out to me. The first student to report any particular error will receive a bonus equal to 3 points on a midterm exam.

Schedule

The schedule of topics is an approximation, but the dates of exams will not change.

Mon aug26 Introduction (ch 1)

Wed aug28 Sentential logic (2.1–2.2)

Fri aug30 continued

first day with clickers

Mon sep2 LABOR DAY

Wed sep4 continued (2.3–2.4)

Fri sep6 continued

Mon sep9 Truth tables (ch 3)

Wed sep11 continued

Fri sep13 continued

Mon sep16 continued

Wed sep18 continued

Fri sep20 FIRST EXAM

Mon sep23 Quantified logic (4.1)

Wed sep25 QL (4.2)

Fri sep27 continued

Mon sep30 QL (4.3)

Wed oct2 QL (4.4–5)

Fri oct4 continued

Mon oct7 QL (4.6)

Wed oct9 continued

Fri oct11 continued

Mon oct14 FALL BREAK

Wed oct16 SECOND EXAM

Fri oct18 Formal semantics (5.1–2)

Mon oct21 Models (5.3–5.4)

Wed oct23 more models (5.5)

Fri oct25 continued

Mon oct28 continued

Wed oct30 continued

Fri nov1 continued

Mon nov4 review

Wed nov6 THIRD EXAM

Fri nov8 Proofs (6.1)

Mon nov11 continued

Wed nov13 continued

Fri nov15 Derived rules (6.2)

Mon nov18 continued

Wed nov20 continued

Fri nov22 Proof strategy (6.6–6.7)

Mon nov25 continued

Wed nov27 THANKSGIVING

Fri nov29 THANKSGIVING

Mon dec2 Proofs in QL (6.4)

Wed dec4 continued

Fri dec6 continued

Mon dec9 review

Fri dec13, 10:30–12:30 FINAL EXAM