Introduction to Logic

Philosophy 210
Fall 2018, MonWedFri 11:30–12:25
Room: LC 24

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Office hours: Tue 11:00–noon, Wed 12:30–1:30 and by appointment

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 so as to get credit for your clicker answers.

Requirements

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 1 point on a midterm exam.

Policies

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

• Make-up exams will not be permitted without a documented excuse. Students who miss an exam with a legitimate excuse should e-mail me 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`

Schedule

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

Mon aug27 Introduction (ch 1)

Wed aug29 Sentential logic (2.1–2.2)

Fri aug31 continued
first day with clickers

Mon sep3 HOLIDAY

Wed sep5 continued (2.3–2.4)

Fri sep7 continued

Mon sep10 HOLIDAY

Wed sep12 Truth tables (ch 3)

Fri sep14 continued

Mon sep17 continued

Wed sep19 continued

Fri sep21 FIRST EXAM

Mon sep24 Quantified logic (4.1)

Wed sep26 QL (4.2)

Fri sep28 continued

Mon oct1 QL (4.3)

Wed oct3 QL (4.4–5)

Fri oct5 continued

Mon oct8 QL (4.6)

Wed oct10 continued

Fri oct12 continued

Mon oct15 SECOND EXAM

Wed oct17 Formal semantics (5.1–2)

Fri oct19 Models (5.3–5.4)

Mon oct22 more models (5.5)

Wed oct24 continued

Fri oct26 continued

Mon oct29 continued

Wed oct31 continued

Fri nov2 NO CLASS

Mon nov5 review

Wed nov7 THIRD EXAM

Fri nov9 Proofs (6.1)

Mon nov12 continued

Wed nov14 continued

Fri nov16 Derived rules (6.2)

Mon nov19 continued

Wed nov21 HOLIDAY

Fri nov23 HOLIDAY

Mon nov26 Proof strategy (6.6–6.7)

Wed nov28 Proofs in QL (6.4)

Fri nov30 continued

Mon dec3 continued

Wed dec5 continued

Fri dec7 continued

Mon dec10 review

Sat dec15, 3:30–5:30 Final exam