# Introductory Logic

PHIL 102, Spring 2009

T/Th 11–11:50, LCB001

Instructor: Colin Klein
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Office Hours: T 12-2
TAs: Matt Hanna, Ken Martin, Isaac Piel
Course Reference Number: 15671

## Course Description

An introduction to contemporary logic. We will cover techniques for translation, evaluation, and derivation in sentential logic, as well as the basics of first-order predicate logic.

## Text

- Paul Teller *A Modern Formal Logic Primer*. (available as a course packet at the University bookstore)

## Assignments

- *Distribution* Your grade will be based on: Six short quizzes (13% ea, total 78%), Weekly homework (1% ea, total 15%), and section attendance (7%). There will be an optional comprehensive final, worth the same as as a short quiz, that will if taken replace your lowest quiz grade.

- *Readings* Readings for each week are listed below. You should do the reading listed before the week begins. You should also expect to re-read each unit at least once after the week's lectures.

- *Homework*: There will be 15 homework assignments, due at the beginning of your Friday section. Late assignments will not be accepted. Homework assignments will be put online at http://tigger.uic.edu/∼cvklein/teaching/102Homework.html

- *Section*: You should be registered for a discussion section. Attendance in section is mandatory. It is your responsibility to contact your TA if you have to miss a section for any reason. More than two unexcused absences will result in the loss of half of the points for attendance, and more than three will result in a 0% participation grade.

- *Exams*: There will be six short quizzes, administered in discussion section on the dates marked below. The date and time for the optional final exam will be announced when set by the registrar. If you miss an in-class exam, it is your responsibility to schedule a make-up exam, to be taken within a week of the original exam date. If you need to reschedule the final, you must contact me at least two weeks prior to the scheduled exam date.

# Additional Information

- *Do not fall behind*. The skills developed in this course are cumulative, and later material will be incomprehensible without a mastery of earlier topics. Keep up with the homework and ask questions in discussion section if you don't understand something. If you fall behind on the work, it is imperative that you talk to your TA as soon as possible in order to catch up.

- The text for the course is freely available online.You are required to have a paper copy of the portions of the text we are discussing, and to bring it to all classes and discussion sections.

- I will rely on email to send out course-related material. You should check your UIC email account on a regular basis. Email is also the most reliable way to contact me.

- Don't cheat. I take academic honesty extremely seriously, and report any evidence of cheating to the Office of the Dean of Students.

- If a religious holiday will interfere with a scheduled class, assignment, or exam, please contact me as soon as possible and no later than the 10th day of the semester. We will be happy to reschedule for you.

- Students with disabilities who require accommodations for access and participation in this course must be registered with the Office of Disability Services (ODS). Please contact ODS at 312-413-2183 (voice) or 312-413-0123 (TTY). If you have a disability, please notify me and the appropriate administrative offices at the beginning of the semester so that we can make accommodations for you. We will be happy to do so.

# Schedule of Readings

| **Week** | Topic | **Assignment** |
|---|---|---|
| 1 | Basic concepts, the first three operators, & building sentences | **Book 1**, Chapter 1 |
| 2 | Transcribing English into Logic | Chapter 1, cont'd and Chapter 2<br>*Quiz 1 on 1/23* |
| 3 | Equivalence, truth, & contradiction | Chapter 3 |
| 4 | Validity & the conditional | Chapter 4 |
| 5 | Review for quiz | Review Chs 1-4<br>*Quiz 2 on 2/13* |
| 6 | Truth trees for sentence logic | Chapter 8 |
| 7 | Putting truth trees to work | Chapter 9<br>*Quiz 3 on 2/27* |
| 8 | Introduction to Natural Deduction | Chapter 5 |
| 9 | Strategies for Natural Deduction | Chapter 6 |
| 10 | Derivations without premises | Chapter 7<br>*Quiz 4 on 3/20* |
| 11 | Introduction to Predicate Logic | **Book 2**, Chapter 1 |
| 12 | Semantics & Validity | Chapter 2<br>*Quiz 5 on 4/10* |
| 13 | Multiple quantifiers | Chapter 3 |
| 14 | Transcription strategies | Chapter 4 |
| 15 | Truth Trees for Predicate Logic | Chapter 7<br>*Quiz 6 on 5/1* |