

MATHEMATICAL LOGIC 1
MHF 6306 / MAT 4930 (SECTION 1B41)
FALL 2015

Instructor: Dr. Christopher Porter

Meeting time and place: 203 Little Hall, MWF 8th period

Office: 452 Little Hall, (352) 294-2370

Office hours: MW 5th period, TR 7th period

E-mail: cpporter@ufl.edu

Course web page: Can be found at <https://lss.at.ufl.edu>

GOALS

This course is the first of a two-part introduction to mathematical logic at the graduate level. The main topics we will cover are model theory, computability theory, and set theory. This semester, we will spend roughly half of our time on model theory, with the remainder of the semester divided between computability theory and set theory. Students completing this course should be prepared to take the Ph.D exam in logic (at least in principle). Previous versions of the exam can be found here:

<http://gma.math.ufl.edu/past-exams/phd-logic/>

COURSE COMPONENTS

Text. For the model theory portion of the course, we will roughly follow the first five chapters of *Model Theory: An Introduction* by David Marker. For the computability theory portion of the course, we will follow selections of *Computability Theory* by Barry Cooper (roughly, Chapters 2-8). For the set theory portion of the course, we will draw upon the first chapter of *The Foundations of Mathematics* by Kenneth Kunen.

Homework. There will be a written assignment collected about every 2 weeks. Homework will be worth 100 points.

Course Notes. Each student will be responsible for typesetting three lectures over the course of the semester.

Exams. There will be an oral final exam worth 100 points.

POLICIES

Attendance. Students are expected to attend class regularly. If you miss class, you are responsible for finding out about homework and/or announcements made during the class. Requirements for make-up exams, assignments, and other work in this class are consistent with university policies and can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

In addition, as described at the above link, if you do not attend at least one of the first two days of class, I reserve the right to drop you from my class. The policy on excessive absences as described in the link above permits me to assign a failing grade to students on the basis of excessive absences (after an initial warning).

Grading policy. Here is the official grading scheme:

- Homework: 100 points
- Final exam: 100 points
- Course notes: 30 points
- Participation: 20 points
- Total: 250 points

Course grades will be determined by the following scale: 92-100 A, 90-91 A-, 88-89 B+, 82-87 B, 80-81 B-, 78-79 C+, 72-77 C, 70-71 C-, 68-69 D+, 62-67 D, 60-61 D-, ≤ 59 E.

In addition to computing your grade by the scheme above, I may also do a second computation with an alternate scheme. If I compute two different scores, your grade will be based on the higher score.

Course Evaluations. Students are expected to provide feedback on the quality of instruction in this course based on ten criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

Academic Honesty. The course will be conducted in accordance with the University honor code and academic honesty policy, which can be found on the web site of the Dean of Students.

Classroom Accommodation. Students with disabilities requesting classroom accommodation should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by proving appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.