

Math 6010

Descriptive Set Theory

Instructor: Dr. Michael R. Oliver
Office: GAB 410
Office hours: TR 10-11, 3:30-4:30 (or by appointment)
Phone: 565-3386
E-mail: moliver@unt.edu
Course website: <http://www.math.unt.edu/~moliver/fall04s.html>

Course meets: TR 11-12:20, AUID 218

Texts: There is no course text, per se. We will draw extensively from David Marker's notes, from *Descriptive Set Theory* by Moschovakis, and from *Classical Descriptive Set Theory* by Kechris. Kunen, *Set Theory* and Jech, *Set Theory* may also be useful.

Topics to be covered: Polish spaces, Borel and projective hierarchies, reduction, separation, prewellordering property, Wadge classes, determinacy, introduction to large cardinals (through measurable), regularity properties of sets of reals, uniformization and scales, other topics as they arise.

Homework: The class will not be "Texas Style" but I will try to involve you in the discovery process as best I can, so if you're afraid of coming up to the board, get over it.

Calculators: You may use any calculator that correctly computes the value of 2^{\aleph_0} . You will be responsible for demonstrating the correctness of the calculation.

Course description from catalog: 6010. **Topics in Logic and Foundations.** 3 hours. Mathematical logic, metamathematics and foundations of mathematics. May be repeated for credit.