

## Math 428/828, Spring 2010/11 Course Log

**Date:** 1/11

**Log:** Snow day. No class.

**Date:** 1/13

**Sections:** 3.2, 3.4.

**Log:** Course policies. Introduction to linear program. Setting up linear programming models. The “Wyndor Glass” and “Pollution Abatement” models.

**Assignment:** Read the “Regional Planning” and the “Reclaiming Solid Wastes” examples in section 3.4.

**Date:** 1/18

**Sections:** 4.1, 4.2

**Log:** Solving linear programming problems graphically. Feasible solutions, the feasible region, corner-point feasible solutions. The linear programming problem in standard form. The resource allocation problem as the archetypal standard model. Introduction to the simplex method. Slack variables.

**Assignment:** Read the “Radiation Therapy” example in 3.4. Problems 3.1-4, 3.1-5, 3.2-1a,b and 3.2-4 are due in class Thursday, 1/27.

**Date:** 1/20

**Sections:** 4.2

**Log:** The standard linear programming problem in augmented form. Basic and nonbasic variables. Basic solutions, basic feasible solutions. Adjacent basic feasible solutions. The simplex method as an iterative method. Initialization of the simplex method. The entering and leaving variables. Using the Octave “glpk” package to solve linear programming problems.