

Instructor: Dr. Brian Heck
Office: 117-A Peltier Hall
Phone: 448-4383
E-mail: heck@math.nicholls.edu
Office Hours: 12:00-2:00 M; 11:00-3:00 W; 9:00-12:00 T, TH

Prerequisites: Math 360

Required Text: Elementary Linear Programming with Applications (2nd ed.) by Kolman and Beck (Academic Press)

Course Description (catalog): Geometry of linear programming; matrix notations; extreme point theorem; basic solutions; the simplex method; slack, excess, and artificial variables; duality; sensitivity analysis; integer programming with applications.

Course Description (instructor): We will begin the semester with an introduction to linear programming problems (LP problems), the elementary methods for solving them, and the geometry of them. This is a very important chapter, since everything we cover after this requires that you have a firm understanding of LP problems. Chapter 2 introduces the simplex method, an extremely useful method for solving LP problems. Chapter 3 describes variations of the simplex method for more complicated LP problems. Chapter 4 restricts our focus to LP problems involving only integers (Integer programming). We will finish the semester with selected topics from Chapter 5 (applications of LP problems) as time allows.

Course Objectives: To learn how to model and solve real world problems with mathematics.

Grading Policy: We will have 4 equally weighted exams.

Attendance: I will not include attendance as part of your course grade. I am not your mother or your parole officer, and this is not high school. I do, however, expect you to attend class everyday. You are responsible for any and all material covered in class.

Tentative Class Schedule: Below is a list of the sections we will cover this semester. We will supplement with additional topics as necessary.

Chapter 1: Sections 1-5
****Test 1****

Chapter 2: Sections 1-3
****Test 2****

Chapter 3: Sections 1-7
****Test 3****

Chapter 4: Sections 1-4

Chapter 5: Selected sections as time allows
*****Final Exam*****

Important Dates:

Final Date to Add Courses or Drop Without a "W" - Wednesday, August 29

Final Date to Drop Courses With a "W" - Monday, October 29