

Text: We will be using *Linear Programming* by Vašek Chvátal and *An Introduction to Optimization* by E.K.P. Chong and S.H. Žak. See the attached **tentative** schedule for the exact sections covered.

Office Hours: My office is Thompson 321G; the telephone number is 756 – 3564. Making appointments or simple, non-mathematical questions can be handled via electronic mail — my address is beezer@ups.edu. Office hours will be 12–12:50 on Monday, Tuesday, Thursday and Friday. I will always be available during these times on a first-come, first-served basis. If these times are not convenient, please do not hesitate to make an appointment with me for another time. You are also welcome to drop by my office without an appointment at any time that I am in (afternoons 2 – 4 are best). Office hours are your opportunity to receive extra help or clarification on material from class, or to discuss any other aspect of the course.

Homework: I will be suggesting problems from the texts as we move through them. As I formulate lectures, I will add the suggested problems to a list maintained on my WWW page (<http://buzzard.ups.edu/courses.html>). It is expected that you will work on these problems, but they will not be collected. Instead, you are welcome to submit your written solutions to me at any time, and I will return written comments. Of course, you are not limited to working *just* these problems. These exercises will form the basis for the classes where we will have problem sessions. It is your responsibility to be certain that you are learning from these exercises. Making a consistent effort outside of the classroom is the easiest way to do well in this course.

Mathematics not only demands straight thinking, it grants the student the satisfaction of knowing when he is thinking straight. — D. Jackson

Mathematics is not a spectator sport. — Anonymous

I hear, I forget.

I see, I remember.

I do, I understand.

— Chinese Proverb

Computing: Gaining experience with the practical aspects of computing solutions to optimization problems is an important part of this course, so there will be six computing exercises. Since your solutions to these problems contribute to your final grade, it is expected that they are your own work. We will be using the modeling language LINGO on the Windows NT machines on the first floor of Thompson Hall. A limited version of LINGO is available for free at the company's WWW site (www.lindo.com) that you may use on your own machines, though it may be insufficient for some problems assigned.

Mathematical Contest in Modeling: We will be participating in this international modeling contest in teams of three, and the solutions you submit will be graded as a project for the course. This contest runs from Friday, February 5 through Monday, February 8, and is likely to consume a good deal of your attention during this 4-day period. If you have any conflicts during this time, please discuss them with me as soon as possible.

Exams: There will be four one-hour exams — the attached schedule has tentative dates indicated. The comprehensive final exam will be given at 4 P.M. on Tuesday, May 11. The final exam cannot be given at any other time, so be certain that you do not make any travel plans that conflict.

Journals: I would like to suggest that you purchase a spiral-bound notebook for this course, and use it for **all** of your course notes, reading notes and problem-solving. Do **everything** in this notebook, and you will have it all handy and organized chronologically, and furthermore, the process of studying this way will reinforce some excellent study habits.

Grades: Grades will be based on the following breakdown: MCM Project - 10%, Computing Exercises - 20%, Exams - 50%, Final - 20%. Attendance and improvement will be considered for borderline grades. Scores will be posted on the WWW off of <http://buzzard.ups.edu/courses.html>. A reminder about withdrawals — a Withdrawal Passing grade (W) can only be given during the third or fourth weeks of the semester, after that time (barring unusual circumstances), the appropriate grade is a Withdrawal Failing (WF), *even if your work has been of passing quality*. See the attached schedule for the last day to drop with an automatic 'W' and please read the Logger about these often misunderstood grades.

Attendance: Daily attendance is required and expected.

Tentative Daily Schedule

Monday	Tuesday	Thursday	Friday
Jan 18 MLK Day	Jan 19 Vegetable Oil Blending	Jan 21 Chapter 1 (Chvátal)	Jan 22 Chapter 2
Jan 25 Chapter 2/3	Jan 26 Chapter 3	Jan 28 LINGO Mechanics	Jan 29 Intro to Modeling
Feb 1 MCM Practice Problem	Feb 2 MCM Solutions	Feb 4 MCM Solutions LINGO #1 Due	Feb 5 MCM Begins No class
Feb 8 MCM Ends No class	Feb 9 MCM Debriefing	Feb 11 Chapter 4	Feb 12 Problem Session
Feb 15 Exam 1 Last day to drop	Feb 16 LINGO Syntax	Feb 18 Chapter 5	Feb 19 Chapter 5
Feb 22 Chapter 5	Feb 23 Chapter 7 LINGO #2 Due	Feb 25 Chapter 7	Feb 26 Problem Session
Mar 1 Chapter 7	Mar 2 Chapter 7	Mar 4 Chapter 7	Mar 5 Chapter 7
Mar 8 Chapter 10	Mar 9 Chapter 12 LINGO #3 Due	Mar 11 Problem Session	Mar 12 Exam 2

Midterm Break

Monday	Tuesday	Thursday	Friday
Mar 22 Chapter 6 (Chong & Žak)	Mar 23 Chapter 7	Mar 25 Chapter 7	Mar 26 Chapter 8
Mar 29 Chapter 8/9	Mar 30 Chapter 9	Apr 1 Chapter 10	Apr 2 Problem Session
Apr 5 Chapter 19 LINGO #4 Due	Apr 6 Chapter 19	Apr 8 Chapter 19	Apr 9 Chapter 20
Apr 12 Chapter 21	Apr 13 Chapter 22 LINGO #5 Due	Apr 15 Problem Session	Apr 16 Exam 3
Apr 19 Chapter 19 (Chvátal)	Apr 20 Chapter 19	Apr 22 Chapter 20	Apr 23 Chapter 20
Apr 26 Chapter 21	Apr 27 Chapter 22	Apr 29 Chapter 22 LINGO #6 Due	Apr 30 Problem Session
May 3 Exam 4	May 4 Housekeeping		

Final Examinations