

better performance from these students on the deferred examination than on the December final exam.

Plagiarism (copying and handing in for credit someone else's work) is a serious instructional offense that will not be tolerated. Please refer to the section on instructional offenses in the Undergraduate Calendar for additional information.

Students with Disabilities: Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities for a formal evaluation of disability-related needs. Registered PMC students are required to contact the Centre, 613-520-6608, every term to ensure that you receive your Letter of Accommodation, no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you require accommodation for your formally scheduled exam(s) in this course, please submit your request for accommodation to PMC by *November 11, 2011*.

Health and Safety Information: Here is the link to the health and safety manual: www.sce.carleton.ca/courses/health-and-safety.pdf

Resources

Textbook: Wayne Winston, *Operations Research: Algorithms and Applications*, 4th edition, Brooks/Cole, 2004. Earlier editions are also useful. The textbook is recommended but not required if you attend classes and take good notes. Partial course notes are available online at <http://www.sce.carleton.ca/faculty/chinneck/po.html>.

Course Web page: <http://www.sce.carleton.ca/courses/sysc-3200/>. Other useful links are collected at <http://www.sce.carleton.ca/faculty/chinneck/StudentOR.html>.

Software Tools: You will need suitable software to carry out some of the homework assignments. The textbook includes a disk that has the LINDO software. The same software is available for free download via the WWW. A variety of alternative free software is available via the web. For pointers to LINDO and other useful software see <http://www.sce.carleton.ca/faculty/chinneck/StudentOR.html>.

Labs: Example problems will be taken up in the lab periods. There will also be an opportunity to ask questions about upcoming assignments and to get feedback on marked assignments.

Getting help: Get help early if you are having difficulty. Here are ways to get help:

- Ask questions in class. It's best to clear things up right at the start.
- Ask the TA during the lab period or office hours. Email to set up an appointment if the office hours won't work for you.
- Ask the professor during office hours. Email to set up an appointment if the office hours won't work for you.
- Email is not a suitable medium for technical questions. Questions submitted this way will be answered at the beginning of the next class.

Course Outline

Schedule

See the online notes and animations for the lectures at
<http://www.sce.carleton.ca/faculty/chinneck/po.html>

Week of:	Topics:	Assigns:
Sept 12	Introduction to the course; introduction to linear programming	
Sept 19	Linear programming via the simplex method	Assign 1
Sept 26	Linear programming for nonstandard models, sensitivity analysis	
Oct 3	Linear programming: LP in practice. Networks: minimum spanning tree, shortest route. <i>No lab October 7 (University Day).</i>	Assign 2
Oct 10	<i>No class Oct. 10 (Thanksgiving).</i> Networks: max flow/min cut	
Oct 17	Network flow programming. PERT.	
Oct 24	<i>Midterm in Lab period Oct 28.</i> PERT and time-cost trade-offs.	Midterm
Oct 31	PERT and resource leveling. Integer programming: branch and bound.	
Nov 7	IP: binary and mixed-integer, genetic algorithms and heuristic methods.	Assign 3
Nov 14	Dynamic programming.	
Nov 21	Markov chains and birth-and-death models. Queueing theory.	Assign 4
Nov 28	Queueing theory. Inventory models	
Dec 5	Inventory models.	