MGSC 1205 **INTRODUCTION TO QUANTITATIVE METHODS I** **Fall 2010**

Course objectives: Problem solving and decision making in business and economics require a combination of "qualitative" skills (setting goals, defining the problem scope, communicating with and getting the support of those who will implement the solution, …) and "quantitative" skills (building mathematical models, measuring risk, evaluating alternatives,…). This course, together with MGSC 1206 and MGSC 2207 introduce some of the foundational mathematical approaches to management. The instructional approach is rooted in identifying and defining problems and then looking at how to solve them, rather than teaching tools and formulas that you may find useful in solving problems that others have specified.

Program learning objectives: The learning goals of the Bachelor of Commerce program are communication, information literacy, critical thinking, team work, and ethics and social responsibility. These are explained in detail on our website (http://www.sobey.smu.ca/programs/bcomm/program.html). The learning objectives for this course are:

The learning objectives of MGSC1205 are:

Information Literacy

☒ Determine and retrieve required information
☒ Critically evaluate and use information effectively
☒ Recognize and acknowledge copyright laws and intellectual property restrictions

Critical Thinking

☒ Formulate and justify positions on issues or situations using appropriate evidence

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Elizabeth Bristow	I	SB 127	420-5750	elizabeth.bristow@smu.ca
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Text: *Introduction to Quantitative Methods* Volume 1. Second Custom Edition for Saint Mary's University, Pearson Custom Publishing, 2009 (ISBN 0-556-s6899-9)

Assignments: There will be six (6) hand-in assignments **due by 1:00 pm on Fridays** according to the schedule on the back. The total of the assignments is worth 15% toward your course grade. Assignments should be stapled in the top left corner with no cover. They are to be submitted in the appropriate collection box located near the Student Lounge on the 2nd floor of the Loyola Building. Assignments may be submitted at any time before the deadline but **will not be accepted after the deadline**.

Midterm: A midterm test will be given during class time as shown on the schedule. If you are unable to write at the designated time for medical reasons, notify your professor before the test date. Marks for missed exams, if medically justified, will be allocated to the final exam.

Final: A three-hour final exam will cover the entire term's work with more emphasis on material taught since the midterm. The day and time of the final exam will be announced by the Registrar in October.

Grading scheme: Your grade in the course will be determined by your final average, using whichever of the following schemes works best for you:

	#1	#2
Assignments	20%	20%
Midterm	30%	20%
Final Exam	50%	60%

Note: To pass the course you must achieve both a **minimum weighted average of 50% on the midterm and final exam combined**, and a minimum weighted average of 50% overall. Your numeric grade will be converted to a letter grade according to the following scheme.

0 – 49.9%	F	60.0 – 62.9%	C-	70.0 – 72.9%	B-	80.0 – 84.9	A-
50.0 – 59.9%	D	63.0 – 66.9%	C	73.0 – 76.9%	B	85.0 – 89.9	A
		67.0 – 69.9%	C+	77.0 – 79.9%	B+	90.0 – 100	A+

Help: Handouts and assignment solutions will be posted on the p: drive (http://drives.smu.ca in directory of /Commerce Finance, Information Systems, and Management Science/MGSC1205/). Solutions will also be posted above the collection boxes.

The electronic files of the handouts and assignments used in previous years are also available on p: drive. Tutorials staffed by student assistants will be available. The schedule will be posted soon. Instructors are available during their office hours.

Illness: If you know before an exam that you will be absent due to illness, please call your professor or the department secretary (420-5724). Failure to do so may result in a grade of zero. A doctor's certificate of your illness must be provided to your professor.

Cheating: Saint Mary's University has a strict policy on Academic Misconduct. The penalties for cheating are severe, including failure on an individual piece of work, failure of the class, suspension, and expulsion from the University. University procedures will be followed in this class; any incident of suspected cheating will be formally reported to the Dean and Registrar for resolution. A good source of information on how to avoid Academic Misconduct is the SMUSA booklet Academic Integrity: A Student's Guide to Avoiding Plagiarism and Cheating.

Class Schedule Fall 2010

Week	class	Date	Day	Topic	Chapter	
1	1	Sep.8/9	W/R	Course overview Introduction to linear models Excel navigation	1.1-1.3, Appendix A, & Module 0	
2	2	13/14	M/T	Breakeven analysis: graph & excel models, goal seek	1.5-1.7 & Module 1	
	3	15/16	W/R	Breakeven analysis: graph & excel models, goal seek	1.5-1.7 & Module 1	
3	4	20/21	M/T	supply and demand: graph & excel models & goal seek	Module 1	
	5	22/23	W/R	Basic LP: formulation	2.1-2.3 & Module 2	A1 due on Sep. 24
4	6	27/28	M/T	Basic LP: graphical solution	2.4-2.7 & Module 2	
	7	29/30	W/R	Basic LP: excel model	2.8-2.10 & Module 3	A2 due on Oct. 1
5	8	Oct. 4/5	M/T	Basic LP: formulation, graphical solution & excel model	2.1-2.10	
	9	6/7	W/R	Basic LP: blending & transportation problems	3.6-3.7 & Module 5	
6	10	11/12	M/T	Thanksgiving or catch up		
	11	13/14	W/R	LP: manufacturing problems	3.3 & Module 5	A3 due on Oct. 15
7	12	18/19	M/T	Review for Midterm	A1-A3	
	13	20/21	W/R	Midterm	Covers A1-A3	
8	14	25/26	M/T	LP: scheduling & financial problems	3.4-3.5 & Module 5	
	15	27/28	W/R	LP: multi-period problems	3.8 & Module 5	A4 due on Oct. 29
9	16	Nov.1/2	M/T	LP: integer programming	6.1, 6.2, & 6.4	
	17	3 /4	W/R	Sensitivity analysis	4.1-4.2	
10	18	8/9	M/T	Sensitivity analysis	4.3-4.4, 4.7	
	19	10/11	W/R	Remembrance Day or catch up		A5 due on Nov. 12
11	20	15/16	M/T	Simple & compound interests	5.1 & Module 6	
	21	17/18	W/R	Future value of annuities: sinking funds	5.2 & Module 6	
12	22	22/23	M/T	Present value of annuities: loans and amortization	5.3 & Module 6	
	23	24/25	W/R	Review or catch up: financial models	5.1-5.3	A6 due on Nov. 26
13	24	29/30	M/T	Review for Final Exam		