Department of Economics
Course Outline

		Term:	Winter 2009
Course:	Economics 307 [Computational Optimization & Economic Applications II]	**Section:**	01
Time:	MWF 12:00-12:50	**Place:**	ST 125 (subject to change)
Instructor:	Dr. J.G. Rowse		
Office:	SS 452	**Telephone:**	220-6109 (Office) 220-5857 (Department)
Office Hours:	MW 09:30 – 10:30 F 10:30 – 11:30	**E-mail:**	rowse@ucalgary.ca

Textbook(s): Winston, Wayne, and Munirpallam Venkataramanan, *Introduction to Mathematical Programming* 4th edition, Thomson, 2003 (This text is bundled with WINDOWS software for LINDO and LINGO). [**Required**]

Book(s) on Reserve:

Anderson, D., Sweeney, D., & Williams, T., An Introduction to Management Science: Quantitative Approaches to Decision Making, West Publishing Co., 7th ed. 1994.

Baumol, W.J., Economic Theory and Operations Analysis, Prentice-Hall, 4th ed.,1977.

Boulding, Kenneth E., Linear Programming and the Theory of the Firm, MacMillan, 1960.

Dorfman, Robert, Samuelson, Paul & Solow, Robert, Linear Programming and Economic Analysis, McGraw-Hill, 1958.

Hillier, Frederick & Lieberman, Gerald, Introduction to Mathematical Programming, McGraw-Hill,2nd ed., 1995.

Loomis, John, and Gloria Helford, Environmental Policy Analysis for Decision Making, Kluwer Academic Publishers, 2001.

Mills, Gordon, Optimization in Economic Analysis, Allen & Unwin, 1st ed.,1985.

Nordhaus, William D., Managing the Global Commons: The Economics of Climate Change, MIT Press, Cambridge, Mass. 1994.

Nordhaus, William D. and Boyer, Joseph, Warming the World: Economic Models of Global Warming, The MIT Press, Cambridge, Mass, 2000.

Paris, Quirino, An Economic Interpretation of Linear Programming, Iowa State University Press, 1st ed.,1991.

Vandermeulen, Daniel, Linear Economic Theory, Prentice-Hall, 1971.

Wagner, Harvey M., Principles of Management Science, Prentice-Hall, 2nd ed.,1975.

> Winston, Wayne, and Munirpallam Venkataramanan, Introduction to Mathematical
> Programming 4th edition, Thomson, 2003 (This text is bundled with WINDOWS
> software for LINDO and LINGO)
> Wu, Nesa & Coppins, Richard, Linear Programming and Extensions, McGraw-Hill, 1981.
> Zenios, Stavros (ed.), Financial Optimization, Cambridge University Press, 1993.

Course Outline: This course is a continuation of Economics 305. Topics covered will be:

1. Further Economic Applications of Linear Programming
2. Nonlinear Programming and Economic Applications

Grade Determination and Final Examination Details:

A final grade will be determined based upon the following weighting schemes:

Evaluation Process	Option I	Option II
Assignments	20%	20%
Exam I (March 4, 2009)	20%	10%
Exam II (April 1, 2009)	20%	10%
Final Exam	40%	30%
Research Project	0%	30%
	100%	100%

The total numerical grade for the course will be computed using each option, and the higher of
the two grades will be the numerical grade for the course. A course letter grade will then be
assigned based on this conversion chart:

A+	90 – 100	B+	77 – 79	C+	67 – 69	D+	57 – 59
A	83 – 89	B	73 – 76	C	63 – 66	D	50 – 56
A-	80 – 82	B-	70 – 72	C-	60 – 62	F	0 – 49

Students will be allowed the use of a calculator during all examinations, subject to the following
restrictions: acceptable calculators are those which are battery or solar-operated and hand-held,
and which are capable of performing arithmetic operations on user-entered numerical data.
Calculators which can pre-store data, formulas or text are not allowed and a student who violates
this restriction is guilty of academic dishonesty. If in doubt, please check with the instructor
first.

The final examination will be scheduled by the Registrar in the classroom and will last two
hours. It will be a comprehensive examination of all material covered in the course.

Note that: all examinations will be open-book; a research project is not required to complete the
course; and a passing grade on any particular item of work is not essential to pass the
course as a whole.

If you choose to work on a research project, NOTE THE FOLLOWING DEADLINES:

February 25   Submission of an outline of work for the research project

March 18   Submission of a progress report on work for the research project

April 15   Submission of the completed research project

Students' Union Vice-President Academic:
     Pamela Weatherbee
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     E-mail suvpaca@ucalgary.ca

Students' Union Faculty Representative (Social Sciences)
     Teale Phelps Bondaroff
     Phone: 403-220-3913Office: MSC 251
     E-mail socialscirep@su.ucalgary.ca

Society of Undergraduates in Economics (S.U.E.):
     E-mail: sue@ucalgary.ca
     www.ucalgary.ca/sue/

Finally, special attention should be directed toward the sections concerning attendance, tape recording of lectures, and student misconduct on pages 43 - 44 and pages 54 - 58 of the 2008-2009 Calendar.

Notes:

- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor *within fifteen* days of the work being returned to the class.

- Make-up or deferred examinations will not be given. Any student who finds it necessary to miss an examination or assignment must notify the instructor in advance and produce a valid medical certificate or other required documentation in order to have the weighting transferred to the final exam. **Late assignments will receive a grade of zero.** Also, examinations will not be given *before* the indicated dates.

- E-mail policy: The Instructor strongly prefers to interact with students in person. If necessary, use e-mail only to arrange a time to see the Instructor.

- **CAUTION**: Lectures and readings from the text are complements, not substitutes, and students are responsible for material presented in both lectures and readings. Students are also responsible for dates for assignments and tutorials that are discussed in class. Regular class attendance is *VERY STRONGLY ADVISED*.   …/4

- It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course

Safewalk / Campus Security: 220-5333

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JGR/mi
2008-11-13