SAM HOUSTON STATE UNIVERSITY
COLLEGE OF BUSINESS ADMINISTRATION
Department of Economics and International Business
Course Syllabus - Fall 2007

COURSE NUMBER: **BAN 364**

COURSE TITLE: **Operations Research**

PREREQUISITE   BAN 363

INSTRUCTOR: John M. Miller, Ph.D., J.D.

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OFFICE HOURS: Monday, Wednesday - 9:00 - 11:30
                          Tuesday, Thursday - 12:30 - 2:30

REQUIRED TEXT   Barry Render & Ralph M. Stair,
                          Quantitative Analysis for Management; Ninth Edition

                          Calculator - make and model optional, but more than addition and subtraction.

DESCRIPTION OF COURSE
          Quantitative methods used in the analysis of business problems. Topics include
          decision theory, linear programming, transportation and inventory models,
          Bayesian probability, and queuing theory.

LEARNING OBJECTIVES

          The major objectives of this course are for the student to have learned to:

1 .   1.   Use the concepts of probability theory to assist with management decisions.

          2.   Work with some of the most powerful and most often-used statistical packages
                    for the solution of common business problems.

2   3.   Understand the various types of data that may be collected and how to analyze
                    these with the statistical packages.

          4.   Explain the assumptions and conclusions used by the techniques.

          5.   Present statistical analysis results in management situations.

6.   Use critical thinking skills in general by the application of statistical techniques to data from real-world situations with the aim of acquiring real-world direction.

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COURSE EVALUATION PROCESS

Homework/Laboratories
Homework will be assigned on a regular basis, handed in and graded as one important part of the total grade. The student is encouraged to work through all the examples in the text and other exercises as well. It is the nature of this beast that practice is the best way to gain understanding. No quizzes will be given over the course of the semester. Up to seven (7) lab sessions will be held during the semester during regular class time. The lab results will be handed in and count in calculation of the final grade

Exams
There will be three major exams given during the course. The exams will be closed book and you will be allowed the use of a calculator. A page of handwritten notes will be allowed.

Final
The final will be comprehensive.

Evaluations

Homework/Labs.	**20%**
Exam I	**20%**
Exam 11	**20%**
Exam III	**20%**
Final	**20%**

The course grade will be based on the following grading scale:

A	90 - 100
B	80 - 89
C	70 - 79
D	60-69
F	below 60

STUDENT SYLLABUS GUIDELINES: You may find online a more detailed description of the following policies. These guidelines will also provide you with a link to the specific university policy or procedure:

http://www.shsu.edu/syllabus/

ACADEMIC DISHONESTY: Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. *See Student Syllabus Guidelines*.

CLASSROOM RULES OF CONDUCT: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students are to treat faculty and students with respect. Students are to turn off all cell phones while in the classroom. Under no circumstances are cell phones or any electronic devices to be used or seen during times of examination. Students may tape record lectures provided they do not disturb other students in the process.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS: Students are allowed to miss class and other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Students remain responsible for all work. *See Student Syllabus Guidelines.*

STUDENTS WITH DISABILITIES POLICY: It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should visit with the Office of Services for Students with Disabilities located in the Counseling Center. *See Student Syllabus Guidelines.*

VISITORS IN THE CLASSROOM: Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

CLASS ATTENDANCE

Class attendance is required. Roll will be taken during each class period. Students are responsible for materials covered during class periods that may not be in the text. Students missing classes may miss important announcements, homework assignments, quizzes, labs, and handouts

TENTATIVE OUTLINE

1. Game Theory (Module M4-1)

2. Review of BAN 232 & 363 - Chapter 1

   Types of data
   Descriptive Statistics
   Measures of Central Tendency
   Measures of Variability
   Probability and Frequency Distributions
   Inference
       Estimation
       Tests of Hypotheses

3. Probability Concepts and Applications (Chapter 2)

4. Decision Theory (Chapters 3)

5. Regression and Forecasting (Chapter 5)

6. Statistical Quality Control (Chapter 17)

7. Queuing Theory, Simulation and Markov Chains (Chapters 14-16)

8. Linear Programming (Chapters 7-9)

IMPORTANT DATES

Last day to change class schedule	Monday, August 27
Last day to drop without an "F"	Wednesday, October 10
Last day for resignations	Thursday, December 6
Final exam	Wednesday, December 12