Sam Houston State University
College of Business Administration
Department of Economics and International Business

Course Syllabus
Spring 2008

Course Number:	BAN 232.05, M, W 12:30 – 1:50 p.m., Rm SHB 134		
Course Title:	Business Analysis		
Prerequisites:	MTH 199		
Instructor:	Dr. Berg	**Office:**	237G – SHB
Office Hours:	9:00 – 11:00 p.m. M,W	**Phone:**	(936)294 - 1243 (Office)
	and by appointment	**E-Mail:**	eco_mdb@shsu.edu

1 Required Materials

We will be using the textbooks entitled *Statistics, The Art and Science of Learning from Data* ISBN 0-13-008369-0, published by Pearson/Prentice Hall and *Calculus For Business, Economics, Life Sciences, and Social Sciences*, Tenth Edition, ISBN 0-13-143261-3, published by Pearson/Prentice Hall. Since we will only require certain chapters from the calculus book, the publisher has agreed to offer a custom edition of the book at a reduced price (ISBN 0-536-26506-2). Look for it at the local book stores. When purchased new the books include access to the textbook web site which is necessary for working homework problems.

There is also the option of going online (http://www.coursecompass.com) and buying access to the textbook web site alone. This allows you to work all of the homework problems online and utilize the online study aids. It also includes page by page access to the textbooks themselves (which could be printed out).

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Every student is expected to have a calculator which can handle exponents, natural logarithms and factorials. Calculators should be brought to every class meeting. Calculators can not be shared during exams. Calculators built into cell phones and PDA's are unacceptable.

2 Supplemental Texts

A fun book which is highly recommended is *The Cartoon Guide To Statistics* by Larry Gonick & Woollcott Smith. Another good book is, *Statistics for People Who (Think They) Hate Statistics*, 2nd edition, by Neil J. Salkind.

3 Student Conduct and Discipline

Each student is expected to be fully acquainted and comply with all published policies, rules, and regulations of SHSU, copies of which shall be available to each student for review online and/or at various locations on campus. Students are also expected to comply with all federal and state laws.

3.1 Academic Honesty

SHSU expects all students to engage in all academic pursuits in a manner that is above reproach and to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. SHSU may initiate

disciplinary proceedings against a student accused of any form of academic dishonesty, including but not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials.

3.2 Cell Phone Policy

Do not let your cell phone ring during class! Do not answer your cell phone during class! Do not use instant messaging during class! If this is unacceptable do not come to class.

3.3 Movements Into and Out of Class

Students should not come and go from the classroom during the lecture. This interrupts the flow of class material, distracting both the students and the professor. Please be courteous by arriving to class on time and refrain from leaving the room until the class is dismissed.

3.4 Food and Drink in the Classroom

The Dean has explicitly requested that we enforce the prohibition of food and drink in the classrooms. Please do not bring food or drink into class.

4 Course Objectives

The purpose of this course is to expose the student to the use of descriptive and inferential statistics, as well as basic derivative calculus and applied mathematics. Topics include: organizing and presenting data, descriptive measures, probability, discrete and continuous distributions, sampling distributions and basic inference. Linear, quadratic, polynomials, exponential and logarithmic functions will be used for modeling various problems encountered in business. The concepts of derivatives will also be introduced as a tool to determine rates of change and solve for optimal values.

5 Course Evaluation Process

Best three mid-term exam scores (there will be 4 mid-term exams, each exam is potentially worth 100 points)	300pts
Best four quiz scores (there will be 5 quizzes, each potentially worth 25 points)	100pts
Final Exam	100pts
Total available points [a]	500 pts

[a] All exams are mandatory. However, I will drop the lowest mid-term exam score. **The final exam grade can not be dropped.**

Although the book homework assignments will not be collected, exam problems will strongly resemble the homework problems. It is in each student's best interest to completely understand the homework problems.

Quizzes are listed on the course outline (see Section 12). If you miss a quiz, a grade of zero will be given for that quiz. There will be NO MAKEUPS given on missed quizzes.

There will be 4 mid-term exams plus the final. Exams will consist of multiple choice questions and problems similar to the assigned homework. The exams will be closed book, however students will be allowed the use of a calculator. Students will be given the entire class period to complete the exam. Each student may drop the single lowest exam score. Since your lowest examination score will not be used in computing your course grade, **there will be no makeup exams** – a missed exam will be scored as a zero.

Students should understand this policy clearly. There are no make-up exams for whatever reason. If you miss the exam for a court date, illness, doctor's appointment, car accident, death in the family, or any other reason, that exam will be scored as a zero. I will drop the single lowest mid-term exam from the grade calculation.

If you know ahead of time that you will not be able to take a mid-term exam at the scheduled time, come to me and discuss the conflict. I may or may not be able to arrange a time for you to take the exam early. However, under no circumstances will I allow you to take an exam after the scheduled time.

Exam scores will be posted on BlackBoard, but your grade for the course will only be available on SamInfo.

The final exam will be comprehensive. **All students must take the final exam.** There are no make-up final exams. Students must take the final exam at the officially scheduled time.

Letter grades will be assigned as follows:

% of Total Available Points Earned by Student	Grade Assigned
90% +	A
80 – 89 %	B
70 – 79 %	C
60 – 69 %	D
0 – 59 %	F

Example Grade Calculation:
Let's assume that John Doe has the following quiz scores: $25, 20, 18, 17, 10$ and the following mid-term exam grades: $85, 80, 75, 50$, and a 90 on the final exam. To calculate John's grade we first drop the lowest quiz score (the 10) and the lowest exam score (the 50) and add the points together: $25+20+18+17+85+80+75+90 = 410$ John earned 410 points out of a potential of 500 points. The percentage of points earned is $\frac{410}{500} \times 100 = 82\%$ John would receive a **B** for the course grade.

5.1 Exam Dates

Exam #1 ..... Wednesday, February 20
Exam #2 ..... Monday, March 24
Exam #3 ..... Monday, April 14
Exam #4 ..... Monday, May 5
Final Exam ..... Monday, May 12, 2:00–4:00 p.m.

Bring your calculator to every class and especially to each exam:(1) a no. 2 pencil (2) your calculator. You will need at least 4 scantrons for the semester.

6 Important Dates

January 21	MLK Day, Holiday
March 10 – 14	Spring Break.
March 21	Good Friday holiday .
May 12	Final exam, 2:00 – 4:00 p.m.

7 Attendance

Attendance will be recorded for each class meeting. According to university policy "Regular and punctual class attendance is expected of each student at Sam Houston State University." (See your undergraduate catalog.) Starting with the second class meeting, attendance will be taken.

IMPORTANT: While the student is in class he/she is expected to be awake and paying attention. Students should not study for another class while in my class. Students not willing or not able to pay attention and participate in the class discussion should not be in class.

8 Student Absences on Religious Holy Days

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student who is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, United States Tax Code.

9 Disabled Student Policy

It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request help with academically related problems stemming from individual disabilities from their instructors, school/department chair, or by contacting the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the Counseling Center, Lee Drain Annex, or by calling (936) 294-1720.

If you have a disability that may adversely affect your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the Counseling Center.

10 Tips for Success

Over the years I have collected a list of study habits followed by the most successful students.

1. Read the assigned chapter before coming to class.
2. Pay attention to the lecture. Concentrate on staying tuned into the class discussion.
3. Ask questions when you don't understand.
4. Review lecture notes as soon as possible after the lecture.
5. **Work as many sample problems as possible.**
6. Review class notes and worked problems on a regular basis.
7. Create a study schedule and stick to it. Even when there is nothing new to study, stick to your schedule and review old material.
8. Read the chapter as many times as it takes for you to understand and remember it. (once lightly – once for understanding – once for review)
9. Discuss the material with other students. Try to help others who are having difficulty understanding.
10. Don't fall behind. Don't wait until the last minute. Do it now!

11 Tutoring

We are currently looking for a qualified tutor. If and when we find such a person, we will announce the hours of availability and location.

12 Course Outline

Date	Lesson	Topic
Wednesday, January 16	1	Proportions, Percentage Change, Exponents
Monday, January 21		MLK Day
Wednesday, January 23	2	Sigma Notation, Index Numbers
Monday, January 28	3	Linear Functions
Wednesday, January 30	4	Exponential Functions
Monday, February 04	5	Logarithms, Quiz # 1
Wednesday, February 06	6	Average Rates of Change, Instantaneous Rates of Change
Monday, February 11	7	Derivative of a Constant, Power Rule, Sums & Differences
Wednesday, February 13		Quiz # 2
Monday, February 18		Review
Wednesday, February 20		Exam # 1
Monday, February 25	8	Product Rule, Quotient Rule
Wednesday, February 27	9,10	Chain Rule, Marginal Analysis
Monday, March 03	11	Interpreting the First & Second Derivatives
Wednesday, March 05	12	Applied Problems
Monday, March 10		Spring Break
Wednesday, March 12		Spring Break
Monday, March 17	13	Derivatives of Logarithmic Functions
Wednesday, March 19		Quiz # 3
Monday, March 24		Exam # 2
Wednesday, March 26	14, 15	Intro. to Statistics – Descriptive Measures – Central Tendency
Monday, March 31	16	Measures of Variability
Wednesday, April 02	17	Percentiles
Monday, April 07	18	Rules of Probability, Quiz # 4
Wednesday, April 09	19	Rules of Probability
Monday, April 14		Exam # 3
Wednesday, April 16	20	Discrete Probability Distributions
Monday, April 21	21	Normal Probability Distribution
Wednesday, April 23	22	Binomial Probability Distribution
Monday, April 28	23	Sampling Distribution, Central Limit Theorem, Quiz # 5
Wednesday, April 30	24	Using the Central Limit Theorem
Monday, May 05		Exam # 4
Wednesday, May 07		Review

13 Assignments

Lesson	Book & Chapter.Section	Lesson Topic	Problems
1	Handouts	Proportions/Percentage Change/Exponents	Handout
2	Handouts	Sigma Notation/Index Numbers	Handout
3	Calc[a] 1.1	Functions	(p. 17) odd 1-11, odd 19-67, 79, 81
3	Calc 1.2	Elementary Functions	(p. 32) 1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 61, 63
3	Calc 1.3	Linear Functions	(p. 49) 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 59, 61, 62, 63
4	Calc 1.4	Quadratic Functions	(p. 64) 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 25, 27, 53, 55, 57, 59
5	Calc 2.2	Exponential Functions	(p. 106) 1, 3, 5, 7, 9, 11, 15, 17, 19, 61, 63, 65, 67, 69, 71
5	Calc 2.3	Logarithms	(p. 119) 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 31, 33, 35, 37, 39, 93, 95, 97
6	Calc 2.3	Average Rates of Change	(p. 173) 1, 3, 5, 7, 11, 13, 17, 59
7	Calc 3.4	Instantaneous Rate of Change: The Derivative	(p. 183) odd number problems1-55, 81, 83
8	Calc 3.5	Product Rule & Quotient Rule	(p. 192) odd numbered problems 1-59, 65, 67
9	Calc 3.6	Chain Rule	(p. 200) odd numbered problems 1-79
10	Calc 3.7	Marginal Analysis	(p. 210) 1, 3, 5, 7, 9, 11, 13, 15
11	Calc 4.1	Graphs and First Derivatives	(p. 238) odd problems 1-31
11	Calc 4.2	Second Derivatives and Graphs	(p. 254) odd problems 1-23
12	Calc 4.5	Optimization Problems	(p. 293) odd problems 1-31
12	Calc 5.1, 5.2	Derivative of Exponential Functions	(p. 311) 1, 3, 5, 7, 9, 17, 19, 21, 23, 25 ; (p. 322) odd problems 1-33, 57, 59, 61
13	Calc 5.3	Derivative of Logarithmic Functions	(p. 333) odd problems 1-37, 69, 71
14	Stat[b] 1.1, 1.2, 1.3	Introduction to Statistics	
14	Stat 2.1	Types of Data	(p. 29) odd numbered problems 2.1-2.7
14	Stat 2.2	Descriptive Statistics, Histograms	(p. 44) 2.11, 2.13, 2.15, 2.17, 2.19, 2.25
15	Stat 2.3	Measures of Central Tendency	(p. 55) 2.29, 2.31, 2.33, 2.35
16	Stat 2.4	Measures of Variability	(p. 63) 2.43, 2.45, 2.47, 2.49
17	Stat 2.5	Percentiles, etc.	(p. 72) 2.57, 2.59, 2.63, 2.65, 2.71
18	Stat 5.1	Probability	(p. 200) 5.1, 5.3
18	Stat 5.2	Probability	(p. 212) 5.13, 5.15, 5.17, 5.23
19	Stat 5.3	Probability	(p. 223) 5.27, 5.29, 5.31, 5.35
20	Stat 6.1	Discrete Probability Distributions	(p. 255) 6.1, 6.3, 6.5, 6.7, 6.9
21	Stat 6.2	Normal Distribution	(p. 267) 6.13, 6.15, 6.17, 6.19, 6.23
22	Stat 6.3	Binomial Distribution	(p. 276) 6.29, 6.33, 6.35, 6.37
23	Stat 6.4	Sampling Distributions, Hypothesis Testing	(p. 286) 6.43, 6.45, 6.47, 6.49, 6.51
24	Stat 6.5	Sample Means and Population Means	(p. 296) 6.53, 6.55, 6.57, 6.59
24	Stat 6.6	Inferences About a Population	(p. 303) 6.61, 6.63, 6.65

[a] *Calculus*, by Barnett, Ziegler, Byleen
[b] *Statistics*, by Agresti & Franklin

Revised 12-8-2005