### SAM HOUSTON STATE UNIVERSITY

College of Business Administration
Department of Economics and International Business

### Course Syllabus Spring 2018

Course Number: BANA 3363.05 Course Title: Int. Business Analysis

Course Time: MW 11:00-12:20 p.m. Classroom: SHB 133 Prerequisites: BANA 2372 Instructor: Dr. Berg MW 2:00-3:30, TH 3:30-5:00 Office Hours: Office: SHB 237K Office Phone: (936)294-1243 E-Mail: dberg@shsu.edu

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## 1 Course Description

This course has statistical inference as its primary focus. Students will learn how to use sample data to make inferences about population parameters. Topics include interval estimation, hypothesis testing,  $\chi^2$  tests, ANOVA, simple regression, and multiple regression. Prerequisite: BANA 2372. Credit 3.

## 2 Learning Outcomes

After completing this course the student should be capable of the following:

- 1. Construct a confidence interval to estimate population means and proportions
- 2. Conduct hypothesis tests about population means, proportions, and variances
- 3. Conduct hypothesis tests involving two populations
- 4. Conduct goodness of fit tests
- 5. Conduct a random block ANOVA
- 6. Estimate a simple regression linear model
- 7. Estimate a multiple regression linear model

# 3 Required Materials

We will be using the textbook entitled Modern Business Statistics with Calculus: An Applied Approach by Anderson, Sweeney, Williams, Camm, Cochran, Larson, Hodgkins, published by Cengage Learning. This textbook is primarily an eBook incorporated into the SHSU Blackboard learning management system. You can purchase access to the book and its materials through Blackboard by clicking on the *Purchase Course Materials* link in the left hand column of the Blackboard page for this course. The eBook is required because all of the homework assignments are online.

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.

# 4 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, by Neil J. Salkind.

## 5 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.

### 5.1 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. (See http://www.shsu.edu/syllabus/)

#### 5.2 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! The use of any cell phone or text messaging device during an exam is strictly prohibited and will be considered cheating. If this is unacceptable do not come to class.

#### 5.3 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.

#### 5.4 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.

#### 5.5 Other University Policies

For policies concerning student disabilities, visitors to the classroom, and student absences on religious holy days, see the university web page http://www.shsu.edu/syallbus/.

# 6 Course Evaluation Process

Online Homework Assignments	$(100 \mathrm{pts})$
Three mid-term exam scores	$300 \mathrm{pts}$
(there will be 3 mid-term exams,	
each exam is potentially worth 100	points)
Final Exam	$(100 \mathrm{pts})$
Total available points*	(500 pts)

\*All exams are mandatory. However, I will replace the lowest

mid-term exam score with the final exam score. The final exam

counts twice, once as a replacement for your lowest mid-term

and once as the final exam. The final exam grade can not be dropped.

The course is divided into three parts. The homework assignments are graded online. Homework for each part must be completed prior to the time of the exam covering that part of the course. Exam problems will strongly resemble the homework problems. It is in each students best interest to completely understand the homework problems.

Your homework grade will be computed as follows:

$$\left(\frac{Sum\ of\ homework\ points\ earned}{Sum\ of\ homework\ points\ available}\right) \times 100 = Homework\ grade$$

There will be 3 mid-term exams plus the final. Exams will consist of multiple choice questions and problems similar to the assigned homework. All exams are comprehensive. 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. Since your lowest examination score will be replaced by final exam score, 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, doctors appointment, car accident, death in the family, or any other reason, that exam will be scored as a zero. I will replace the single lowest mid-term exam score with the final exam score.

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 your transcript.

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	Grade
Earned by Student	Assigned
90% +	A
80 89%	$\mathbf{B}$
70 79%	$\mathbf{C}$
60 69%	$\mathbf{D}$
0 59%	$\mathbf{F}$

#### Example Grade Calculation:

Lets assume that John Doe has earned 92% of the available homework points, therefore his homework grade is 92. John has the following mid-term exam grades: 85, 80, 50, and a 90 on the final exam. To calculate Johns grade we first replace the lowest exam score (the 50) with the final exam score (the 90) and add the points together: 92 + 85 + 80 + 90 + 90 = 437 John earned 437 points out of a potential of 500 points. The percentage of points earned is  $\left(\frac{437}{500}\right) \times 100 = 87.4\%$ . John would receive a **B** for the course grade.

#### 6.1 Exam Dates

Exam 1	Wednesday, February 21
Exam 2	Wednesday, April 4
Exam 3	Monday, April 30
Final Exam	

# 7 Important Dates

Spring Break, March 12-16 Last Day for Q-drop, April 6 Final Exam, Wednesday, May 9 12:00-2:00 p.m.

### 8 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.

## 9 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 dont 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. Dont fall behind. Dont wait until the last minute. Do it now!

# 10 Tutoring

If you need additional help, tutoring is available at the following times, Monday through Thursday 1:00-4:30 in SHB 108. Keep in mind that the day before the exam the tutor is very busy and may not be able to give you much attention. It is best to go well in advance of the exams.

### 11 Class Schedule

Day Activity

Wednesday January 17 canceled (weather)

Monday January 22 Sampling Distribution Review

Wednesday January 24 Interval Estimation
Monday January 29 Interval Estimation
Wednesday January 31 Hypothesis Testing
Monday February 5 Hypothesis Testing
Wednesday February 7 Hypothesis Testing

Monday February 12 Inference About Means and Proportion with Two Populations
Wednesday February 14 Inference About Means and Proportion with Two Populations

Monday February 19 Inferences About Population Variances

Wednesday February 21 Exam 1

Monday February 26 Tests of Goodnes of Fit, Independence, and Multiple Proportions
Wednesday February 28 Tests of Goodnes of Fit, Independence, and Multiple Proportions

Monday March 5 Experimental Design and Analysis of Variance
Wednesday March 7 Experimental Design and Analysis of Variance

Monday March 12 Spring Break Wednesday March 14 Spring Break

Monday March 19 Experimental Design and Analysis of Variance

Wednesday March 21 Simple Linear Regression
Monday March 26 Simple Linear Regression
Wednesday March 28 Simple Linear Regression
Monday April 2 Simple Linear Regression

Wednesday April 4 Exam 2

Monday April 9

Wednesday April 11

Multiple Regression

Monday April 16

Multiple Regression

Multiple Regression

Wednesday April 18

Multiple Regression

Multiple Regression

Multiple Regression

Wednesday April 23

Wednesday April 25

Multiple Regression

Monday April 30 Exam 3
Wednesday May 2 Last Class
Wednesday, May 9 12:00-2:00 p.m. Final Exam