## Sam Houston State University

College of Business Administration Department of Economics and International Business

#### **Course Syllabus**

Spring 2018

Course Number: BANA 2372 04, 06 Course Title: Introductory Business Analysis Prerequisite: MATH 1324 Instructor: Marsie Grant Office: SHB, room 309A •E-Mail: mcg004@shsu.edu Office phone: (936) 294-1293 Office | M 11 - 11:45 Hrs: | W 8:30 - 9:15; 1-1:45 in SHB108

#### **REQUIRED MATERIALS**

Our BANA courses use online materials published by Cengage. The textbook and practice problems, along with many support materials and graded assignments are accessed through Blackboard. It is now necessary to purchase the access code at the university bookstore.

MindTap access code - ISBN: 9781285149028 It should be ~\$80 for two semesters of access.

Loose leaf printed textbook - Absolutely NOT required! – ISBN: 9781337702263 MindTap will be available free-of-charge for about the first 2 weeks, but after that you will be locked out until you pay. You may purchase a loose-leaf version of the text if you wish, but must have access to the online materials. Print copies of our online textbooks, <u>Calculus: An Applied Approach</u> by Larson and <u>Modern Business</u> <u>Statistics</u> by Anderson et al, will be at the reserve desk in NGL and in the Tutoring and Study Center, SHB 108, should you want to use them.

**Calculator:** At a minimum, your calculator needs to have exponents, square roots, e<sup>x</sup>, log x and ln x. Statistical functions and graphing capabilities are acceptable (and desirable) for *checking* your work, but you will be expected to show work/steps. If you are considering investing in a powerful calculator to see you thru college, consider a TI 83, 84. However, you do not *need* an expensive calculator for this class. Bring your calculator to **every** class meeting. You **may not** share calculators during quizzes or tests.

**Do not** use a cell phone calculator or other multi-function personal electronic device. The visible presence of such a device (or headphones) during a test will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty.

Scantrons: You will need Scantron forms (882-E) for tests. (Green or Blue, 50 answer spaces per side)

# **COURSE DESCRIPTION:** The course is designed to introduce students to the use of quantitative business techniques. Topics include

- using linear, quadratic, exponential, and logarithmic functions for modeling problems encountered in business
- using derivatives to determine rates of change and to solve for optimal values.
- organizing and presenting data, descriptive statistics, probability, discrete and continuous distributions, sampling, and estimation

#### COURSE OBJECTIVES: The student will

- Learn to use algebra and the derivative in solving problems in business.
- Learn fundamental principles, theories, and terminology of statistics.
- Learn the terminology and methods of quantitative analysis (the application of mathematics to finance)
- Improve thinking, problem solving, and decision making thru the use of math and statistics

#### **CLASS POLICIES:**

#### **•**ACADEMIC DISHONESTY:

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.

For this class, that means any work turned in is done by the student whose name is on the work. You may work together on assignments, but in submitting the work, you are indicating that it was done by you.

#### **•**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. In particular:

- **CELL PHONES:** Cellphones should be silenced during class and should be used only to access MindTap materials for our course. (A student may discuss an emergency cell phone situation with the instructor before class begins.) **Remember:** Even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty.
- **CLASS ATTENDANCE** Class **attendance** is expected in accordance with university policy. Roll will be taken. Students missing classes may miss important announcements, homework assignments, quizzes, handouts, or material for which they are responsible.

Please arrive in time to be ready for the start of class. Late arrivals disrupt the flow of material and distract both students and instructor. I expect active participation and engagement during class (see tip #2 below). Please do not leave class until the instructor is finished, as this is also a distraction. If you have a job interview or unavoidable appointment and must leave early, you should speak to the instructor privately before class begins.

Names of two classmates to email through Blackboard in case of unavoidable absence:

- 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.
- **FOOD AND DRINK** Food and drink are NOT ALLOWED in this classroom. I will ask you to throw away food and any beverage other than colorless water in a bottle if you bring it into the classroom.

#### **•**STUDENTS WITH DISABILITIES POLICY:

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities 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 Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). For a complete listing of the university policy, see: <a href="http://www.shsu.edu/dotAsset/187f9029-a4c6-4fb4-aea9-2d501f2a60f3.pdf">http://www.shsu.edu/dotAsset/187f9029-a4c6-4fb4-aea9-2d501f2a60f3.pdf</a> **+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. Let me know in writing by the 12<sup>th</sup> class day (Fri Sept 8) if you will miss a test for a holy day.

#### **GRADE IN COURSE**

Homeworks & MindTap work ------ 25% 20% Test 1, 2, & 3 -----20% 15% Cumulative Final Exam 20% 100% \* The lowest test grade will be counted 15%. If, at the end of the semester, you have turned in and received a passing grade on HW 1,2,&3 and have not missed a test and have no more than 4 absences for any reason, your lowest test grade (15%) can be replaced by a higher grade on the final exam.

**Tests**: After-test-date make-ups usually cannot be given. If you believe you will have to miss a test, check with me in advance, as arrangements to take a test early can sometimes be made. Otherwise, you will need to bring documentation of illness, critical family event, accident, etc. If the absence is approved by me, your final exam grade will count twice – once as the final exam (20%) and once as the missing (lowest) test grade (15%).

Homework and MindTap: Three written homework assignments (each covering several sections in the online textbook) will be turned in. The dates are in the calendar below. They will count 25 points toward this collective grade. Once we begin statistics, the assignments and activities are submitted through MindTap and count between 2 and 20 points each toward this grade. More on this when we get to the statistics part of the course.

#### Letter grades will be assigned as follows

| 90 and up | А | Bonus points : Tests usually have more than       |
|-----------|---|---|
| 80 - 89%  | В | 100 points possible                               |
| 70 - 79%  | С | 100 points possible                               |
| 60 - 69%  | D | 1 point for $> 75\%$ completion of IDEAS by class |
| 0 - 59%   | F |   |

Notice that there is a bit of gray area. If your average falls in the gray area, attendance\*, participation, attitude, and effort will influence my rounding. For example, an 89.09 (or an 89.96) could be a B or an A. Having > 8 absences will lower your final grade by one letter.\*

### \* The three items above with asterisks constitute my **attendance policy**. Calculating your grade during the semester

I do not calculate grades except at the end of the semester. I am happy, though, to discuss your written calculation with you in my office.

#### **TIPS FOR SUCCESS**

- 1. Read the assigned material before coming to class.
- 2. Participate actively in class. Pay attention to the lecture. Take notes. Especially, copy examples and try to do calculations along with me. If, after seeing a couple of examples, you do not understand, raise a hand and ask questions.
- 3. Work all assigned problems, checking answers where possible. Watch video explanations and ask questions at the start of class, in office hours, via email or in departmental tutoring about problems you were unable to reconcile on you own. For this reason, you may want to screenshot the problem about which you have questions.
- 4. I used to include tips on using the textbook, and the importance of practicing as opposed to re-reading. MindTap helps you with this. The "textbook" includes video explanations, simulations, practice problems, and a read aloud tool. There are tools specifically for test review.
- 5. Form a study group with other students. Get together weekly to work on problems together, or a day or two before each test. The tutoring and study center in SHB 108 is a good place for this.
- 6. View each test as a performance. You would not sight read a musical piece in a recital; you would practice in advance. You would not run a race without training runs. The same approach should be used with math tests. Prepare by working problems.
- 7. Don't fall behind. Don't wait until the last minute. Do it now!

#### **OUTSIDE HELP**

See me in office hours or by appointment. Department tutors are available  $\underline{M} - F \underline{11:00} - 4:30$  in SHB 108

#### PROFESSIONALISM

Punctuality – be on time.

Collegiality-before and after class, interact with peers who are present, not with a device. Engagement-stay on-task.

Commitment – get the job done.

#### **ABOUT BLACKBOARD**

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You should probably check BB and MindTap every other day or so and transfer due dates to your personal calendar. Assignments will have due dates after which they cannot be submitted. MindTap will help you learn the material, but it will not tolerate procrastination

#### **Final Exam:**

| For section 04 | M W | 9:30 final exam is   | Wednesday, May | <u>9 9:30 - 11:30</u> . |
|----------------|-----|----------------------|----------------|-------------------------|
| For section 06 | M W | 2:00 final exam is _ | Monday, May 7  | <u>3:30 – 5:30 .</u>    |

#### TENTATIVE CALENDAR

I will try to stay close to this calendar, barring university closures, etc. Some variation may occur. The dates given are Monday and Wednesday of that week.

| 1 | Jan 17 (Wed) | Class cancelled. Brrrrr<br>On your own, review exponents. BB  | 9  | Mar 10 - 18   | Spring Break  |
|---|--------------|---|----|---------------|---|
| 2 | Jan 22 ,24   | Percents, percentage change,<br>Sigma Notation, Price indices,<br>Ch 1 Sec 2-4<br>On your own Ch1.1 and watch Videos<br>on Linear and Quadratic functions | 10 | Mar 19, 21    | Ch 2.5 Graphical excellence<br>3.1-3.3 Numerical<br>description of data         |
| 3 | Jan 29, 31   | Quadratic Applications<br>Ch 2.1,2,4 Beginning derivatives  | 11 | Mar 26, 28    | Ch 3.4 5# summary & box plots<br><b>Test 2</b> (Wed, Calc 3.4 thru<br>Stat 3.3) |
| 4 | Feb 5, 7     | Ch 2.3 – 2.6 More derivatives<br>HW 1 due on Wed (thru 2.2)   | 12 | Apr 2,4       | Ch 4 Probability  |
| 5 | Feb 12, 14   | Ch $3.1 - 3$ 1 <sup>st</sup> and 2 <sup>nd</sup> deriv sign charts<br>Ch 3.4 Optimization   | 13 | Apr 9, 11     | Ch 5 Discrete Random Variables<br>and Probability distributions                 |
| 6 | Feb 19, 21   | 3.5, (8) Applications of derivatives<br><b>Test 1 Wednesday (Stops at 3.3)</b><br><b>HW 2 due at this time (thru 3.3)</b>                                 | 14 | Apr 16, 18    | Ch 6 Continuous RV's and Prob.<br>Distr.  |
| 7 | Feb 26, 28   | Ch 4.1-5 Exponential & Log functions  | 15 | Apr 23, 25    | Ch 7 Sampling Distributions<br><b>Test 3</b> (Wed, Stats 3.4 – Ch<br>6)         |
| 8 | Mar 5, 7     | Statistics Ch 1, Ch 2.1,2 Displaying<br>data<br>Ch 2.3&4 examples in class<br><b>HW 3 due on Wed (thru 4.5)</b>   | 16 | Apr 30, May 2 | Ch 7 Sampling Techniques and errors   |

Online Course M