Course Instructor: Dr. Aditi Bhattacharyya  
Email: axb023@shsu.edu  
Phone: (936) 294-4791 (Office)

Class Information: Lecture: Tuesday and Thursday 2:00 p.m – 3:20 p.m; SHB 135  
Office: Smith-Hutson Business Building, 241F  
Office Hours: 9:30 a.m.– 11:00 a.m. on Tuesdays and Thursdays, and by appointment on other days

Course Objectives:
1. Learn the fundamental principles/theories of business analysis
2. Learn to apply course materials to improve thinking, problem solving, and decisions.

Course Description: The course is focused on the basic mathematical and quantitative techniques required for business analysis. Topics include organizing and presenting data, descriptive statistics, probability, discrete and continuous distributions, systems of equations, modeling, optimization procedures, and statistical inference. Students are expected to develop the ability of understanding and applying mathematical and statistical concepts and techniques like percentage and percentage changes, single variable derivatives, descriptive statistics, basic rules of probability, common discrete and continuous probability distributions, basics of sampling distributions and statistical inference. Every student is expected to have a calculator (not built in your cell phone or PDA) that can handle exponents, natural logarithms and factorials. The knowledge and skills you acquire in this course will also be needed in some of the courses you will take in the future. Credits: 3.

Prerequisites: MATH 1314 or 1324 or 1420

Textbooks:

Course Outline:

- Calculus part
  - Proportions, Percentages, and Percentage Change: Chapter 1
  - Exponents and Logarithms: Chapter 2
  - Sigma Notation and Index Numbers: Chapter 3
  - Basic Functions: Chapter 4
  - Rates of Change: Chapter 5
Teaching Approach:
The instruction will consist of lectures, class discussions, and homework problems. Each topic will be introduced and example problems will be solved to demonstrate how the relevant method is applied. Homework problems will be assigned in lectures but will not be collected. However, you are expected to solve all homework problems; your learning and success in the course critically depends on regular study and solving a large number of problems. All students must regularly check Blackboard (https://blackboard.shsu.edu/webapps/login/) for course materials and points obtained for quizzes and exams.

Exams and Grading:
There will be 5 quizzes (25 points each), 4 midterm exams (100 points each), and a final exam (100 points). Exams and quizzes will consist of multiple choice questions. Midterm 1 and 2 will be based on the calculus part, midterm 3 and 4 will be based on statistics part, and the final exam will be COMPREHENSIVE. They will count toward the course grade as follows.

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Best 4 quizzes</td>
<td>100</td>
</tr>
<tr>
<td>Best 3 midterm exams</td>
<td>300</td>
</tr>
<tr>
<td>Final exam</td>
<td>100</td>
</tr>
<tr>
<td>Total available points</td>
<td>500</td>
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There will be NO MAKE-UP quiz and exam for any reason. The lowest score on one quiz and one midterm will be eliminated. ALL STUDENTS MUST TAKE THE FINAL EXAM. All quizzes and exams are closed book. You will need a calculator and a no. 2 pencil for all quizzes and exams. You are not allowed to use calculators built into cell phones and PDAs.

Some extra credit questions will be assigned during the semester. You must follow the announcements made during the lectures for information relevant to extra credit questions.

The exam scores will be posted on Blackboard. Letter grades will be assigned on the following basis

<table>
<thead>
<tr>
<th>% of total available points</th>
<th>Grade assigned</th>
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<tbody>
<tr>
<td>90%+</td>
<td>A</td>
</tr>
<tr>
<td>80 – 89%</td>
<td>B</td>
</tr>
<tr>
<td>70 – 79%</td>
<td>C</td>
</tr>
<tr>
<td>60 – 69%</td>
<td>D</td>
</tr>
<tr>
<td>0 – 59%</td>
<td>F</td>
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</tbody>
</table>
You are responsible for following up all the announcements regarding quiz and exam dates made during the lectures.

Attendance: Class attendance is required in this course. Attendance will be recorded for each class meeting. You’ll be considered absent from a class session if you are not in attendance when the class starts, or if you leave without permission before the class is dismissed.

Tutoring: Tutoring is available on Monday through Thursday from 1:00 p.m. to 4:30 p.m. in room SHB 140.

Students with Special Needs: Please let me know in writing (with necessary documents) at least 2 weeks before an exam, if you need special accommodations. If you have a disability that may adversely affect your work in this class, then contact me, or the school/department chair, or the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the Counseling Center. All disclosure of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the Counseling Center.

E-mail policy: You are expected to check your SHSU email account on a frequent and consistent basis in order to stay current with course related communications. Any email from me about this course will only be sent to your official SHSU email address. Any communication from you to me must come from your SHSU email address.

Use of telephones and text messagers: Any use of telephone or text Messager or any device that performs these functions during class-times and test periods is prohibited. These devices should not be present during a test or should be stored securely in such a way that they cannot be seen or used by the student. 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. Arrangements for handling potential emergency situations may be granted at the discretion of the instructor. (see student code of conduct http://www.shsu.edu/students/guide/StudentGuidelines2010-2012.pdf#page=29)

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.

Code of conduct: I expect you to maintain an effective learning environment during the lectures including, but not limited to:
- Coming to every class
- Not being late to the class
- Staying in class until the class is dismissed
- Refraining from talking to your classmates during lectures
- Refraining from using laptop and headphone during the lecture
- Turning off your pager or cell phone before the class starts

Remarks:
- Learning calculus and statistics, even at the introductory level, requires a lot of hard work, including taking notes in class and studying them later, studying the textbook, and solving a lot of problems.
- Focus on UNDERSTANDING rather than MEMORIZING the course materials.
- Read the relevant chapters of the text before the topics of that chapter are discussed in class. The objective is to get acquainted with the subject.
- Come to class regularly and don't hesitate to ask questions. I do not mind to be interrupted with questions.
- Study the subject covered in class as soon as possible using the text and/or your notes. Solve the problems that we have solved in class again and go over the examples in the book. When you feel
comfortable with the subject matter, do the homework problems. The purpose of homework problems is to enhance students’ understanding of the basic concepts and methodologies learnt in class. If you have difficulty with the homework problems, review the section and/or your notes. If you still experience difficulty, contact me as soon as possible.

- All the topics we cover in this course require the knowledge of topics covered earlier. Hence, one thing you cannot afford to do in this course is to fall behind
- For more information on the department, follow the department website (http://www.shsu.edu/academics/economics-and-international-business/) and the Facebook group (https://www.facebook.com/groups/208741956458/)