DATA ANALYSIS AND STATISTICS

COURSE DESCRIPTION:

A study of descriptive statistics, probability distributions, the normal distribution, confidence intervals and hypothesis testing, regression analysis and chi-square.

COURSE PREREQUISITES:

Prerequisite: BUSI 0011, MATH 1314 and MISY 2305 or equivalents

LEARNING OBJECTIVES:

By the end of this course, the students will be able to:
1. Demonstrate knowledge of quantitative concepts and skills. (BBA Goal 2, Objective 1)
2. Discuss key statistical concepts used in business. (BBA Goal 2, Objective 2)
3. Apply basic statistical methods of data analytics, founded in probability theory. (BBA Goal 2, Objectives 1, 2, and 3)
4. Interpret statistical inferences using the results obtained by the application of basic statistical methods. (BBA Goal 3, Objectives 1, 3)

MAJOR COURSE REQUIREMENTS:

In this course, you are required to complete seven (7) module quizzes, four (4) Blackboard discussions, one (1) statistics case using Microsoft Excel, seven (7) module assignments, one (1) midterm exam, and one (1) final exam.

REQUIRED TEXT:


Link to use to purchase the textbook:

If the above link does not work, simply search (in your favorite search engine) for the ISBN number: 9781260696189 and make sure obtain the textbook the INCLUDES the ACCESS CODE for CONNECT

You will also need a calculator for this class. A standard five-function (addition, subtraction, multiplication, division, and square root) calculator is all that is needed.

COURSE DELIVERY:

This course is a fully online course meaning that you must have access to an Internet connected computer to complete
the requirements for this course. The course is divided into seven (7) modules, one module for each week of the course. Each module will contain a deadline in which the work/assignments for that module must be completed. The course is set-up to allow for working ahead if you want or need to do so.

EXPECTATIONS OF STUDENTS:

1. As with all technology, computer issues, Internet issues, ISP issues, e-mail issues, and etc. may occur. You are expected to have a contingency plan in place that includes accessing the course material in advance of the due dates. Waiting until the ‘last minute’ to complete assignments limits your opportunity to find a work around should a technology issue occur.
2. You are responsible for all material presented in this online course.
3. You are responsible for turning in all assignments on time.
4. You are responsible for staying informed of assignments, due dates, and any changes to the syllabus communicated via BlackBoard and/or via e-mail.
5. You are responsible for doing everything necessary to learn statistics.
6. You are responsible for knowing and abiding by the rules and policies outlined in this syllabus.

MAJOR FIELD TEST:

The Major Field Test (MFT) is required for all students pursuing the Bachelor of Business Administration degree and will be administered in the MGMT 4388 course, “Administrative Policy and Strategy”. To prepare for this test, business majors are advised to retain their class notes, textbooks and other relevant materials from this class and the other business core courses. Students will enroll in BUSI 0088 “MFT Review” (concurrently with MGMT 4388) during their final semester; this online course should fine-tune their readiness for the MFT by encouraging them to complete the online MFT review materials and required quizzes available on the course Blackboard learning modules.

COURSE POLICIES:

ATTENDANCE/TARDINESS – This is a fully online course. As a fully online course, you are responsible for logging-in to your Blackboard account and this course regularly to keep up with the material, assignments, discussions, quizzes and any other course related assignments or announcements. Any suggestions you have on how to provide the class a better learning experience are always welcome.

EXAMS - Your performance will be evaluated (in part) on one midterm examination and one final examination. The exam formats will generally be short answer and problems and/or multiple choice. Readings, PowerPoint presentations, quizzes, and assigned problems will be the basis of these exams. Rather than being purely numerical, problems will be presented in word scenario format. You will be allowed to use a Formula sheet and a calculator for each examination.

QUIZZES - Your performance will be evaluated (in part) on seven (7) module quizzes. The quizzes formats will generally be short answer, problems, and/or multiple choice. Lectures, readings, discussions, and assignments, will be the basis of these quizzes. Each module quiz will be due at the end of the week for that module.

MAKEUP QUIZZES/ASSIGNMENTS – Quizzes and/or assignments are not to be missed for the convenience of the student. You are expected to schedule other activities around the class quiz/assignment dates. Since you have the ability to work ahead in this course, you should plan accordingly if you feel that you will need to miss a scheduled due date. It is your responsibility to manage your time to allow for the completion of the coursework. Any quiz or class assignment missed will be assigned a grade of ZERO. Each of the module assignments will be due at the end of the week for that module.

CLASS DISCUSSIONS – There will be several class discussions that will be assigned throughout the semester. You will be responsible for creating a discussion thread for each class discussion as assigned AND you will be responsible for replying to AT LEAST two (2) of the discussion threads created by your classmates. Your replies to your classmates posts should reflect the fact that you have read and though about the post. Simple replies such as “Good Job!”, “Great Post!”, or etc. will not be counted as a reply for grading purposes. Each of the discussion assignments will be due at the end of the week in which the discussion assignment is made.

ELECTRONIC DEVICE USAGE - Calculators, computers or tablets are required to complete this course.
EXTRA CREDIT (if any) - Extra credit may become available from time to time. It can take several forms, including opportunities to participate in research projects and/or campus activities, and then writing brief reports about them. Extra credit opportunities are each worth 5 points.

GRADING - Your grade in this course will be based on your performance on seven (7) quizzes, case problems, module assignments, a mid-term exam, a final exam, and discussions. PERCENTAGES ARE NOT USED IN GRADING IN THIS COURSE. IF YOU WANT A PARTICULAR LETTER GRADE YOU MUST EARN THE MINIMUM NUMBER OF POINTS FOR THAT LETTER GRADE. For example, for a letter grade of “A” you must earn at least 2250 points (in other words 2249.9 points IS NOT an “A”, 2249.9 points IS a letter grade of “B”). The distribution of points per assignment and the tentative grading scale are as follows:

- Intro Videos and Simulations (3 at 15 points each) 45 points
- Reading assignments (10 at 10 points each) 100 points
- Case Problem 55 points
- Chapter Assignments (10 at 50 points each) 500 points
- Chapter Quizzes (10 at 80 points each) 800 points
- Discussions (4 at 25 points each) 100 points
- Mid-Term Exam 450 points
- Final Exam 450 points
- Total points 2500 points

The tentative grading scale is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2250-2500</td>
</tr>
<tr>
<td>B</td>
<td>2000-2249.9</td>
</tr>
<tr>
<td>C</td>
<td>1750-1999.9</td>
</tr>
<tr>
<td>D</td>
<td>1500-1749.9</td>
</tr>
<tr>
<td>F</td>
<td>below 1500</td>
</tr>
</tbody>
</table>

ACADEMIC INTEGRITY/PLAGIARISM - University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a zero the first time and failing the course for any additional offense. NO EXCEPTIONS!

DROPPING A CLASS - I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. April 10, 2020 is the last day to drop a class with an automatic grade of “W” this term.

PREFERRED METHODS OF SCHOLARLY CITATIONS – APA style is the only accepted method used for citations and referencing during this class. All work should be paraphrased rather than copied directly. Material used from sources other than the text should use APA style citations and references.

CLASSROOM/PROFESSIONAL BEHAVIOR - Texas A&M University–Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

STATEMENT OF CIVILITY – Texas A&M University – Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high-quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal
government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the right of another individual will not be tolerated.

**GRADE APPEALS** - As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html). For assistance and/or guidance in the grade appeal process, students may contact the Dean’s office in the college in which the course is taught or the Office of the Provost.

**DISABILITIES ACCOMMODATIONS** - The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

**STATEMENT OF ACADEMIC CONTINUITY** - In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**EXAMITY PROCTORING INFORMATION:**

This course requires the use of exam-proctoring involving third party charges. **Exam-proctoring charges a fee ranging from $1.00 - $50.00 per exam.** Students are required to schedule exams at least 24 hours in advance or incur late scheduling charges.

All costs for exams are the responsibility of the student. Students are also responsible for providing webcams, microphones and all required systems to be used in test proctoring.

**Examity System Requirements**

- Operating System: 2003 Server, XP, Windows Version 7 or higher
- Processor: Minimum 2.4GHz
- RAM: Minimum 2GB
- Internet Speed: 3 MPBs upload and download for simultaneous screen sharing, video and audio conferencing. Determine your Internet speed by running a test at: [http://www.speedtest.net](http://www.speedtest.net)
- Browser: Internet Explorer® 7.0 or newer, Mozilla® Firefox 4.0 or newer, Google® Chrome 5.0 or newer.
- Student must take the exam on a desktop computer or laptop (**not a smart phone or tablet**).
- Student must have a working built-in or external webcam and microphone. To make sure your webcam and microphone are enabled, complete your “Computer Requirements Check” located within your Examity profile.

**Set up Examity Account**

Below are instructions on how to set up your Examity account, which must be done before you can schedule exams. Once the exams are set up, an announcement will be sent via the Blackboard (Bb) to let you know when you can start registering with Examity. You cannot register before you receive a notification from me. Set-up consists of the following 2 steps:

1. **Accessing the system:**
   - You can access Examity through Bb.
   - Log into Bb, and click on the Tools on the left side of your screen, then select the ExamityTamuccSSO link. This will take you to your Examity dashboard.

2. **Update your profile:**

ORMS 3310 – Data Analysis and Statistics – Spring 2020
• You need to update your profile by creating 3 unique security questions.
• You need to upload a government-issued picture ID (such as Driver's license or State ID). You need to bring this ID with you every time you take a test (for verification purposes) so make sure you use an ID that you have regular access to.
• Update your time zone.

Once you have finished setting up your account, you can schedule exam appointments. Note that if you schedule less than 24 hours in advance, you will have to use the on-demand scheduling option and pay an extra fee.

Examity will provide you with a step-by-step guidebook on how to use the software in order to ensure that setup, scheduling, and the test-taking process are as simple as possible. Examity also offers 24/7 tech support via phone, email, or chat.


Some common questions and their answers are provided at: http://www.examity.com/faq.html

RELATIONSHIP TO OTHER COURSE WORK:

Descriptive and inferential statistics are foundations of business analysis and communications. Specifically, the topics in the course supportive of studies in accounting, finance, management, marketing, and operations management

STATISTICS CASE PROBLEMS:

You will be assigned various case problems to complete throughout the semester. You will use Microsoft Excel to help you with the statistical calculations. However, you should keep in mind the calculations are only part of the solution. The true value lies in the interpretation of the statistics that you calculate. Hence, you are required to create a professional Managerial Report to go along with your calculations. Each case problem will give you the MINIMUM requirements that should be included in the Managerial Report. NOTE: Turning in the minimum requirements (as defined in the case problem) DOES NOT guarantee that you will receive full credit for the assignment. You are encouraged to think critically about the material you learn and apply it as necessary to the case problem solutions.

All case solutions are to be typed as comments into the Microsoft Excel worksheet where the calculations are done. All case solutions are to be turned in as a soft copy that must be e-mailed (name the file with your last name and the chapter e.g. “Smith-ch-3-case.xls”) to the instructor on or before the due date. If you plan not to attend class on the date an assignment is due, it is your responsibility to turn in all parts of the assignment BEFORE the due date. LATE WORK WILL NOT BE ACCEPTED! NO EXCEPTIONS!

INSTRUCTOR STATEMENT:

It is my intention to devote the time, effort, and resources to properly instruct each student, and the class as a whole, in the course subject matter and industrial applications in general. I encourage you to devote the time and effort necessary to succeed in this course. The material in this course IS cumulative. Hence, you should strive to keep up with the material and not fall behind.

I encourage you to attend class and participate in all aspects of the learning process.

Best wishes for your success in the class.

CLASS SCHEDULE:

The following class schedule has been prepared to serve as a guide for the semester. Adjustments may be made to this schedule as necessary. Examinations/Quizzes will cover all material indicated on the schedule below (regardless of whether or not is was discussed in in a lecture).

This Class Is NOT Self-Paced. Each (GRADED) assignment has a specified DUE DATE by which that assignment/quiz/discussion etc. MUST BE COMPLETED. However, you may work ahead in the course since all of the assignments will be available from the beginning of the course EXCEPT the discussion assignments, midterm
exam, and final exam.

**TENTATIVE CLASS SCHEDULE***

<table>
<thead>
<tr>
<th>Week:</th>
<th>Topic</th>
<th>Chapter</th>
<th>Section</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Mar 18, W)</td>
<td>Module 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistics and Data</td>
<td>Chapter 1</td>
<td>1.1 - 1.3</td>
<td>Complete Chapter 1 Reading Assignment <em>(GRADED)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Discussion 1 <em>DUE: 03.20.2020 @ 11:59pm (GRADED)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 1 Assignment *(GRADED) *DUE: 03.21.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 1 Quiz *(GRADED) *DUE: 03.22.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td>Tabular and Graphical Methods</td>
<td>Chapter 2</td>
<td>2.1 - 2.2 and 2.4</td>
<td>Complete Chapter 2 Reading Assignment <em>(GRADED)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 2 Assignment *(GRADED) *DUE: 03.22.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 2 Quiz *(GRADED) *DUE: 03.22.2020 @ 11:59pm</td>
</tr>
<tr>
<td>2 (Mar 23, M)</td>
<td>Module 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Numerical Descriptive Measures</td>
<td>Chapter 3</td>
<td>3.1, 3.2, 3.3, 3.5</td>
<td>Complete Chapter 3 Reading Assignment <em>(GRADED)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Discussion 2 <em>DUE: 03.27.2020 @ 11:59pm (GRADED)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 3 Assignment *(GRADED) *DUE: 03.27.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 3 Quiz *(GRADED) *DUE: 03.29.2020 @ 11:59pm</td>
</tr>
<tr>
<td>3 (Mar 30, M)</td>
<td>Module 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to Probability</td>
<td>Chapter 4</td>
<td>4.1 – 4.3</td>
<td>Complete Chapter 4 Reading Assignment <em>(GRADED)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 4 Assignment *(GRADED) *DUE: 04.03.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td>Discrete Probability Distributions</td>
<td>Chapter 5</td>
<td>5.1 – 5.3</td>
<td>Complete Chapter 5 Reading Assignment <em>(GRADED)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 5 Assignment *(GRADED) *DUE: 04.03.2020 @ 11:59pm</td>
</tr>
<tr>
<td>Date</td>
<td>Module</td>
<td>Reading Assignment</td>
<td>Due Date</td>
<td>Quiz</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>4 (Apr 06, M)</td>
<td>Module 4</td>
<td><strong>Continuous Probability Distributions</strong> Chapter 6 6.2</td>
<td>Complete Chapter 6 Reading Assignment (GRADED)</td>
<td>Quiz (GRADED) DUE: 04.05.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 5 Assignment (GRADED) DUE: 04.10.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Discussion 3 Assignment (GRADED) DUE: 04.10.2020 @ 11:59pm</td>
</tr>
<tr>
<td>4 (Apr 06, M)</td>
<td>Module 4</td>
<td><strong>Sampling and Sampling Distributions</strong> Chapter 7 7.1 - 7.5</td>
<td>Complete Chapter 7 Reading Assignment (GRADED)</td>
<td>Complete Chapter 6 Quiz (GRADED) DUE: 04.12.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 7 Quiz (GRADED) DUE: 04.12.2020 @ 11:59pm</td>
</tr>
<tr>
<td>4 (Apr 08, W)</td>
<td>Midterm Exam</td>
<td>Midterm Exam covering chapters 1 – 5), via BB proctored by Examity. There are slots available to schedule every 30 minutes beginning at 8:00AM until 9:30PM</td>
<td><strong>Students must have already scheduled an exam time (at least 24 hours in advance of the desired exam time slot) with Examity for proctoring in order to be able to take the exam.</strong></td>
<td><strong>Students must have already scheduled an exam time (at least 24 hours in advance of the desired exam time slot) with Examity for proctoring in order to be able to take the exam.</strong></td>
</tr>
<tr>
<td>5 (Apr 13, M)</td>
<td>Module 5</td>
<td><strong>Interval Estimation</strong> Chapter 8 8.1, 8.2, 8.4</td>
<td>Complete Chapter 8 Reading Assignment (GRADED)</td>
<td>Complete Chapter 8 Quiz (GRADED) DUE: 04.12.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 8 Assignment (GRADED) DUE: 04.17.2020 @ 11:59pm</td>
</tr>
<tr>
<td>6 (Apr 20, M)</td>
<td>Module 6</td>
<td><strong>Hypothesis Testing</strong> Chapter 9 9.1 - 9.3</td>
<td>Complete Chapter 9 Reading Assignment (GRADED)</td>
<td>Complete Chapter 9 Quiz (GRADED) DUE: 04.24.2020 @ 11:59pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter 9 Assignment (GRADED) DUE: 04.24.2020 @ 11:59pm</td>
</tr>
<tr>
<td>Date (Day, M)</td>
<td>Module</td>
<td>Topic</td>
<td>Chapter</td>
<td>Sections</td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
<td>-------</td>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>7 (Apr 27, M)</td>
<td>Module 7</td>
<td>Basics of Regression Analysis</td>
<td>Chapter 12</td>
<td>12.1 - 12.3</td>
</tr>
<tr>
<td>7 (May 06, W)</td>
<td>Final Exam</td>
<td>Final Exam covering chapters 6 – 9, and 12, via BB proctored by Examity. There are slots available to schedule every 30 minutes beginning at 8:00AM until 9:30PM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

****Students must have already scheduled an exam time *(at least 24 hours in advance of the desired exam time slot)* with Examity for proctoring in order to be able to take the exam. ****

*This is our plan and is subject to change.*