

ORMS 3310

DATA ANALYSIS AND STATISTICS

SUMMER 1 2012

Section 002 – 2:00pm - 3:55pm – MTWR – OCNR 133

INSTRUCTOR: Robert Cutshall, Ph.D. **OFFICE HOURS:** 12:50pm – 1:50pm – M, T & W
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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: MATH 1314 and MISY 2305 or equivalents

REQUIRED TEXT:

Essentials of Statistics for Business and Economics (6th edition), Anderson, Sweeney, and Williams, South-Western Cengage Learning, Mason, OH, 2011: ISBN-13: 978-0-538-75458-3

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 OBJECTIVES:

1. You will enhance your knowledge of quantitative concepts and skills.
2. You will develop an understanding of key statistical concepts used in business.
3. You will learn basic statistical methods of data analysis, founded in probability theory.
4. You will draw statistical inferences using the results obtained by the application of basic statistical methods.
5. You will apply basic statistical methods to data with the help of the statistical applications found in Microsoft Excel.
6. This course will assist you with your preparation for the Major Field Test to be administered in MGMT 4388.

EXPECTATIONS OF STUDENTS:

1. You are **EXPECTED** to have read the material **BEFORE** it is covered in class.
2. You are responsible for all material presented in lecture and assigned readings.
3. You are responsible for turning in all assignments on time.
4. You are responsible for staying informed of assignments, meeting locations, and any changes to the syllabus announced during class time.
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.

INSTRUCTIONAL METHODOLOGY:

Scheduled class time will be used for lectures and student activities. Many of the suggested questions, exercises, and problems will be reviewed during the lectures. You are encouraged to ask questions and to participate in class discussions on statistical methodologies and their applications. In addition, you are encouraged to pay attention to commercials and news items in printed as well as audio-visual media to become aware of the wide use of statistics in our daily lives.

EXAMS:

Your performance will be evaluated on two regular examinations and a comprehensive exam three. The exam formats will generally be short answer and problems where you must show your work and/or multiple choice. Lectures, readings, class activities, and homework problems will be the basis of these exams. Many of the questions will be similar to questions for review and discussion. Rather than being purely numerical, problems will be presented in word format. You will be allowed to use a Formula sheet for each examination. The formula sheet must be turned in with your examination form. *You should KEEP all of your graded exam forms until the final grades have been posted.* ****THE USE OF CELL PHONE CALCULATORS ON THE EXAMS ARE NOT PERMITTED.****

MAKEUP EXAMS:

Exams are not to be missed for the convenience of the student. You are expected to schedule other activities around the class exam dates. If a major exam is missed due to an excused absence, a make-up exam will be administered at a time and place agreed upon by the student and instructor. In general, make-up exams will be administered within one week of the date of the original exam. Any exam or class activity missed without a pre-approved excuse will be assigned a grade of **ZERO**.

SUGGESTED PRACTICE PROBLEMS:

It is the student's responsibility to work the suggested study questions, exercises, and problems. This is how quantitative topics are learned (through practice). It is the student's responsibility to ask questions regarding any issues encountered when working the suggested study questions.

STATISTICS CASE PROBLEMS:

You will be assigned various case problems to complete through out 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!**

GRADING:

Your grade in this course will be based on your performance on two exams, case problems, activities, and a comprehensive third exam. 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 360 points (in other words 359 points IS NOT an "A", 359 points IS a letter grade of "B"). The distribution of points per assignment and the tentative grading scale are as follows:

Exams (2 at 100 points each)	200 points
Case Problems	50
In-Class Activities/Attendance	50
Exam III (comprehensive)	<u>100</u>
Total points	400 points

The tentative grading scale is as follows:

<u>Grade</u>	<u>Points</u>
A	360-400
B	320-359
C	280-319
D	240-279
F	below 240

RECORD YOUR GRADES HERE:

Throughout the semester, record your grades in the blanks provided below. At any point in the semester you can add the points together to see where you stand in the class and how many points you need to earn a specific letter grade.

Exam 1: _____ Case 1: _____

Exam 2: _____

Exam 3: _____

ATTENDANCE POLICY:

Regular and punctual attendance for the **full** period of each class is expected. Unexcused absences **WILL** adversely affect your grade. Attendance of all classes is expected and attendance will be checked from time to time. Should you miss a class, you are responsible for all material covered, including announcements and handouts. Any suggestions you have on how to provide the class a better learning experience are always welcome.

COB CODE OF ETHICS:

This course, and all other courses offered by the College of Business (COB), requires all of its students to abide by the COB Student Code of Ethics (available online at www.cob.tamucc.edu) Provisions and stipulations in the code are applicable to all students taking College of Business courses regardless of whether or not they are pursuing a degree awarded by the COB. Any and all violations of the COB Code of Ethics **WILL** result in an incident report being filed with the COB Dean and the VP of Student Affairs. In addition, a grade of zero (0) for the assignment will be recoded and/or a grade of zero (0) for the ENTIRE ORMS 3310 course will be recorded. **NO EXCEPTIONS!**

AMERICANS WITH DISABILITIES ACT COMPLIANCE:

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 contact the Disability Services Office at 361.825.5816 or visit the office in Corpus Christi Hall, Room 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.

GRADE APPEALS

As stated in University Rule 13.02.99.C2, Student Grade Appeals, 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 Rule 13.02.99.C2, Student Grade Appeals, and 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. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

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.

GENERAL COMMENTS:

1. Doing the assignments is essential to succeeding in this course. You are encouraged to keep up with the suggested homework problems and check the answers provided in the back of the textbook.
2. You should not hesitate to ask questions in class. Usually someone else has the same question, so, by asking in class everyone can benefit from the question.
3. You should not hesitate contact me outside of class if you need more assistance in learning the material.

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 will cover all material indicated on the assignments below (regardless of whether or not is was discussed in class) in addition to any material covered in class lectures.

TENTATIVE CLASS SCHEDULE*

<i>MTWR Date Week:</i>	<i>Topic</i>	<i>Chapter</i>	<i>Section</i>	<i>Assignments</i>
1 (June 04, M)	Introduction to Statistics	Chapter 1	1.1-1.6	Read Chapter 1
	Charts and Graphs	Chapter 2	2.1 2.2 & pages 58-60	Read Chapter 2 Read Chapter 3
1	Descriptive Statistics	Chapter 3	3.1 3.2	Read Chapter 4
	Descriptive Statistics	Chapter 3	3.3	
1	Descriptive Statistics	Chapter 3		
	Probability	Chapter 4	4.1	
	Probability	Chapter 4	4.2	
2 (June 11, M)	Probability	Chapter 4	4.3	Read Chapter 5
	Probability	Chapter 4	4.4	
2	Discrete Distributions	Chapter 5	5.1 5.2	
	Discrete Distributions	Chapter 5	5.3 & 5.4	Read Chapter 6

2 (June 14, R)	***** EXAM I *****	Chapters 1, 2, 3 and 4	*****	*****
3 (June 18, M)	Discrete Distributions	Chapter 5		
	Continuous Distributions	Chapter 6	6.2	Read Chapter 7
	Sampling and Sampling Distributions	Chapter 7	7.1, 7.2	
3	Sampling and Sampling Distributions	Chapter 7	7.3	Read Chapter 8
	Sampling and Sampling Distributions	Chapter 7	7.4, 7.5	
3	Sampling and Sampling Distributions	Chapter 7	7.6	
	Sampling and Sampling Distributions	Chapter 7	7.7	
3	Estimation for Single Populations	Chapter 8	8.1	
	Estimation for Single Populations	Chapter 8	8.2	
4 (June 25, M)	***** EXAM II *****	Chapters 5, 6, and 7	*****	*****
4	Estimation for Single Populations	Chapter 8	8.3	Read Chapter 9
	Hypothesis Testing for Single Populations	Chapter 9	9.1, 9.2	
4	Hypothesis Testing for Single Populations	Chapter 9	9.3	
4	Hypothesis Testing for Single Populations	Chapter 9	9.4	Read Chapter 12
	Simple Linear Regression	Chapter 12		
5	Simple Linear Regression	Chapter 12	12.1, 12.2	<u>DUE June 29, 2012</u> Chapter 12 Case
5	Catch-up Q&A etc...			
5 (July 03, T)	EXAM III (comprehensive)	Chapters 1, 2, 3, 4, 5, 6 and 7 (50 percent) ***** Chapters 8, 9, and 12 (50 percent) *****		

*This is our plan and is *subject to change* given notice by your instructor.

STATEMENT OF UNDERSTANDING OF THE REQUIREMENTS OF ORMS 3310.002

I have read the above syllabus and agree to abide by the class policies and procedures set forth therein.

I understand that I must earn at least the minimum required number of points listed in the syllabus to achieve my desired letter grade.

I understand that I must inform the instructor ahead of time and provide written documentation if I have to miss a scheduled exam for university related business.

I also understand that if I must miss a scheduled exam due to a university excused absence, the final exam grade will be counted twice to cover the missed exam.

I also understand that if I miss a scheduled exam due to an unexcused absence, I will receive a grade of **ZERO** (0) on that exam.

I understand that the use of cell phone calculators on exams is **NOT** permitted.

I understand that Exam III IS cumulative (questions on any material covered during the semester are possible final exam questions).

I understand that I am solely responsible for my own work in this course (In other words, I will not turn-in someone else's work as my own). Turning in some else's work as my own will result in a grade of **ZERO** (0) for the entire ORMS 3310 course.

I understand that academic dishonesty will not be tolerated in this course.

I understand that I am responsible for asking for any necessary clarification to the requirements listed in the course syllabus.

I understand **ALL** of the other written requirements in this syllabus for this course that have not been reiterated on this page.

I understand that I must sign/date this page and return this page to the instructor within three (3) days of receipt of the syllabus.

Signed this the _____ day of _____, 2012.

Print your name: _____

Signature: _____