

**Course Number/Section/Name:** IDM2342 Section 2, Statistics for Business and Economics

**Days/Times/Location:** Monday, Wednesday 1:00-2:15, Old Main, Rm 325

**Professor:** F. G. Landram

**Office Location:** 236 Old Fine Arts Building

**Office Hours:** MW 10:00-12:30 am, 2:30-3:30 pm, or by appointment

**Office Phone:** (806) 651-2446

**E-Mail:** flandram@mail.wtamu.edu

### **COB Mission Statement**

The mission of the College of Business is to provide high quality undergraduate and graduate business education with a global perspective and ethical awareness. We accomplish this through emphasis on excellence in teaching, which is strengthened by faculty scholarship and supported by professional service.

### **COB Learning Goals**

1. Common Body of Core Business Knowledge
2. Communication: Writing, Speaking, and Technology
3. Micro Business Environment: Ethics and Critical Thinking Applications
4. Macro Business Environment: Global, Cross-Cultural and Teamwork Applications

### **Course Description**

The course consists of an in-depth study of conceptual and practical aspects of descriptive and inferential statistics. Topics include (a) basic fundamentals. vocabulary, symbols, probability tables;. (b) statistics concepts. which includes central limit properties and hypothesis testing; (c) applications. which includes data analysis and forecasting

### **Course Objectives**

1. Students will gain a comprehensive understanding of the following:  
(a) descriptive statistics (mean, median, mode, range, percentiles, standard deviation),  
(b) binomial distribution, (c) normal distribution, (d) uniform distribution.
2. Students will gain an comprehensive understanding of (a) central limit properties  
(b) usage of distribution tables, (c) interval estimates, and (d) hypothesis testing for one or more population means and proportions.
3. Students will be able to determine the appropriate hypotheses, perform the test, and interpret the results for (a) interval estimates and hypothesis testing for sample means and proportions, (b) analysis of variance, (c) regression analysis, and (d) time series applications.(as time allows).
4. Students will demonstrate knowledge of the usage of spreadsheets for (a) usage of the various statistical functions, (b) construct frequency and scatter graphs, (c) build descriptive statistics tables for data sets, (d) build statistical models that are used in analysis of variance, (e) build statistical models that are used in regression analysis, and (f) build statistical models that are used in time series applications.
5. Students will acquire critical thinking skills through statistical problem solving.

**Map from COB Learning Goals to Objectives for this course**

| COB Learning Goal   | Course Learning Objectives   | Assessment Instrument  |
|---|--|--|
| 1. Common Body of Core Business Knowledge                                       | Students will develop critical thinking and spreadsheet usage skills by using statistical analysis applied with spreadsheet technology.  | Students who perform at a 70% or higher on homework and tests are deemed to have attained an acceptable learning outcome for these objectives. |
| 2. Communication: Writing, Speaking, and Technology                             | Students will demonstrate a knowledge of statistical applications using spreadsheets technology. Students will learn descriptive statistics used in communication and report writing | Students who perform at a 70% or higher on homework and tests are deemed to have attained an acceptable learning outcome for these objectives. |
| 3. Micro Business Environment: Ethics and Critical Thinking Applications        | Students will develop critical thinking skills by selecting the appropriate statistical method and in analyzing the results. Environmental ethics are not taught                     | Students who perform at a 70% or higher on homework and tests are deemed to have attained an acceptable learning outcome for these objectives. |
| 4. Macro Business Environment: Global, Cross-Cultural and Teamwork Applications | Macro business environment: global, cross-cultural and teamwork applications are not taught.   | Macro business environment: global, cross-cultural and teamwork applications are not taught.   |

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A student's continued enrollment in this course signifies acknowledgment of and agreement with the statements, disclaimers, policies, and procedures outlined below and elsewhere in the WTClass container.

**Technology Requirements**

All technological requirements for the successful completion of this course are the responsibility of the student, including access to a working computer with broadband internet connection and state-of-the-art security. The student is responsible for all technological problems not related to WTAMU, including but not limited to equipment failures, power outages, and internet breakdowns. Furthermore, students are responsible for all necessary technical and operational skills for completing this course, and for being familiar with WTClass (the Angel Learning System) both in a general sense and in a specific sense as pertaining to this course and any materials stored within. The professor is not responsible for any technical matters related to WTClass. Students must contact WTClass if they have problems accessing and/or using Angel.

**Viewpoints Disclaimer**

The views expressed in this document, web-based course materials, and/or classroom presentations are those of the professor and do not necessarily represent the views of West Texas A&M University, its faculty and staff, or its students. Views expressed by students are likewise those of the person making such statements.

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### **Repeating Course Work**

Students are charged a fee for any course attempted for a third or subsequent time at WTAMU other than a non-degree credit developmental course or exempted courses.

### **Disabilities**

West Texas A&M University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with Disability Support Services and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

### **Scholastic Dishonesty**

It is the responsibility of students and instructors to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty. Commission of any of the following acts shall constitute scholastic dishonesty. This listing is not exclusive of any other acts that may reasonably be said to constitute scholastic dishonesty: acquiring or providing information for any assigned work or examination from any unauthorized source; informing any person or persons of the contents of any examination prior to the time the examination is given in subsequent sections of the course or as a makeup; plagiarism; submission of a paper or project that is substantially the same for two courses unless expressly authorized by the instructor to do so; submission of a paper or project prepared by another student as your own. You are responsible for being familiar with the university's Academic Integrity Code.

### **Physical or Educational Access**

West Texas A&M University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with Disability Support Services and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

**Evacuation Statement**

If you receive notice to evacuate the building, please evacuate promptly but in an orderly manner. Evacuation routes are posted in various locations indicating all exits, outside assemble area, location of fire extinguishers, fire alarm pull stations and emergency telephone numbers (651.5000 or 911). In the event an evacuation is necessary: evacuate immediately do not use elevators; take all personal belongings with you; report to outside assembly area and wait for further information; students needing assistance in the evacuation process should bring this to the attention of the instructor at the beginning of the semester.

**Chemical and Equipment Safety Statement**

Safety is everyone's responsibility. Material Safety Data Sheets (MSDSs) are provided for all chemicals used in this class. MSDSs provide information about physical properties, health risks, fire explosion data, and other important information associated with these chemicals. Before handling or using a chemical, you should refer to the MSDS for that chemical. It is your responsibility to inform the instructor in writing of any health conditions that may prevent you from safely using a chemical (pregnancy, auto immune deficiency, etc.). It is also the responsibility of the student to report any spill or problems found while storing or using a chemical. If you are unsure about a chemical, always ask. If you see any unsafe condition, notify your instructor immediately. If you are unsure about the proper and safe operation of any piece of equipment, ask your instructor for proper instruction. All injuries, spill of materials and unsafe conditions must be reported to the instructor immediately.

Students will be unable to access any other part of this course until completing a one-question assessment in the Lessons area of this course.

**REQUIRED TEXTS/RESOURCES:**

Statistics for Business and Economics, 9th edition, by Anderson, Sweeney. and Williams, 9th edition, Thomson-Southwestern, ISBN 0-324-20082-X

**GRADING:** Only one **makeup exam** will be given at the end of the semester.

|   |                      |
|---|----------------------|
| Two lecture exams at50 points each        | 100                  |
| One lecture exams at100 points            | 100                  |
| Homework/Computer Exercises/Class Project | 100                  |
| A Final exam                              | <u>100</u>           |
|   | Total 400            |
| A = 360                                   | B = 320              |
| C = 280                                   | D = 240              |
|   | Disaster = below 240 |

**COURSE SYLLABUS FOR QBA 2342**

**COURSE SYLLABUS**

Textbook. STATISTICS FOR BUSINESS AND ECONOMICS, 9th ed. by Anderson, Sweeney, Williams

Instructor Dr. F. G. Landram; Office 236 Old Fine Arts,, phone 651-2446, Prerequisites Math 115-116

**Objective:** The objectives of this course are given above. This course promotes a working knowledge and appreciation of statistical methods used in business and economics. An objective is also given with each chapter.

**GRADING:** Only one **makeup exam** will be given at the end of the semester.

|  |            |
|--|------------|
| Two lecture exams at 50 points each                                      | 100        |
| One lecture exams at 100 points  | 100        |
| Homework/Computer Exercises/Class Project                                | 100        |
| A Final exam   | <u>100</u> |
| Total  | 400        |
| A = 360      B = 320      C = 280      D = 240      Disaster = below 240 |            |

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**Course content** is divided into three parts:

- I. basic fundamentals. vocabulary, symbols, probability tables
- II. statistics concepts. central limit properties, hypothesis testing
- III. applications. data analysis and forecasting

**ASSIGNMENTS      Part 1**

- 1 Read Chapters 1 and 2. Work the Frequency Distribution **Handout**.
- 2 Work the Scatter Diagram (**SD1**) using Excel SD1, p49
- 3 Read Chapter 3. Work ex 4 (compute SS, S<sup>2</sup>, S), 14, 31, 32, and SD2, ex 64, p126; SDT, ex65
- 4 Chapter 6, pp 229-240, Work ex 13-18, 26. Normal Distribution HO, SD3 p641
- 5-6 Read Chapter 5, pp185-206. Work exercise 7, 16, 30-35; Binomial HO; SD4, ex5, p643
- Part II.** 7 Read Chapter 7; Work ex 1, 11, 13, 24-27, 32, 38-40, HO, SD5, ex55, p693
- 8 Read Chapter 8. Work ex 5-7, 15, 19, 23, 31-36; HO review
- 9 Read Chapter 9. Work ex 19-21, 28, 30, 32, 41-46, SD6. ex19, p737
- Part III.** 10 Read Chapter 13, pp491-510. Work ex 4, 16, 30 with SD's SD7-8
- 11 Read Chapter 14. Work exercises 40-42, SD9, ex38, p667
- 12 Read Chapter 15. Work ex 51 – 53, 57 SD10, p695
- 13 Read Chapter 16. Work exercises 12, 14, also p728 with SD's SD11-13
- 14 Read Chapter 18. Work exercises 21, 36, 41, with SD's