



Course Syllabus: Adv Applied Business Stats

Dillard College of Business Administration

BUAD 5603 Section 180

Fall Semester 2026

SYLLABUS CHANGE POLICY:

This syllabus is a guide for the course and is subject to change. All changes will be announced in class and students will be responsible for incorporating the changes into the syllabus.

Contact Information

Instructor: Dr. John E. Martinez

Office: Dillard College, Second Floor, Room 255

Office hours: 10:15-11:30 Monday through Thursday

Office phone: (940) 397-4722

Cell Phone: Optional

E-mail: john.martinez@msutexas.edu

Students should contact the instructor at this email address; not through d2L.

Course Description

The course emphasizes the application of statistical tools to real-life business concerns. Taking into consideration current statistical technology, the course focuses on the use and interpretation of software, while also demonstrating the logic, reasoning, and calculations that lie behind any statistical analysis. Furthermore, the course is structured around the most commonly used SAS statistical procedures. You will also learn how to test the assumptions for all relevant statistical tests. Major topics featured include descriptive statistics, one-and two-sample tests, ANOVA, correlation, linear and multiple regression, and analysis of categorical data. Course Pre-requisites - BUAD 3033 or equivalent and consent of Graduate Coordinator here to enter text

Textbook & Instructional Materials

Required text:

Connect 3P Inclusive Access Online Access for Essentials of Business Statistics /

Jaggia,Kelly / 3rd edition / 9781265192228 / 180-days /

<https://connect.mheducation.com/class/j-martinez-inperson-180>

Course Material: Access to SAS OnDEMAND for Academics (SODA) and to EXCEL

SAS OnDemand for Academics (hence forth called ODA) is through SAS on a cloud platform; you don't have to download anything.

Registering for ODA:

To gain access to ODA, you need to register with SAS Institute. Part of the registration process is to create a SAS profile. If you already have a SAS profile, skip that portion of the instructions. To start, point your browser to: <https://welcome.oda.sas.com>

Other ancillary Material:

In addition to the two texts, students need to have access to the following:

- WebCam video and Thumb drive:

Each student should have a thumb drive (USB) on which to keep various data sets and assignments that will be a part of each class. Projects and assignments may include the requirement that electronic versions of your work be submitted. If students have access to MSU-DCOBA labs, then downloading the SAS software is not necessary. SAS software is installed in most DCOBA labs.

Optional text:

A Gentle Introduction to Statistics Using SAS® Studio in the Cloud

Copyright © 2021, SAS Institute Inc., Cary, NC, USA

978-1-954844-45-2 (Paperback) 978-1-954844-47-6 (EPUB)

LEARNING GOALS

A. General Learning Goals (GLC):

- The general objective of this course is to review and solidify the knowledge gained in undergraduate statistics course and enhance the ability to use statistical analysis in decision-making process.
- Problem solving and decision making abilities through critical analysis, evaluation and interpretation of business information. Problem solving skills and interpretation of results will be assessed exams and quizzes.
- Ability to use statistical Software **(with emphasis on SAS)**.
- Ability to comprehend statistical discussions and comment on them.

General Learning Goals (GLC) associated with Assessment of Learning (AOL)

GLG3: Students will produce creative responses to business situations.

Objective: Our graduates will demonstrate the capability to critically analyze business situations and develop creative solutions to opportunities and problems.

GLG4: Our students will integrate knowledge across business disciplines.

Objective: Graduates will demonstrate the capability to integrate knowledge across business disciplines.

GLG5: Our students will communicate (in written form) at a professional level.

Objective: Graduates will be able to communicate in a professional business manner.

B. Course Specific Learning Goals:

- Summarize data using descriptive statistics.
- Understand the appropriate methodology for computing all statistical measures covered in this course.
- Apply basic statistical measure to the solution of structured business problems and interpret results.
- Understand the Ordinary Least Squares (OLS) model and its applications.
- Apply hypothesis testing to business problems and estimates of coefficients.

Study Hours and Tutoring Assistance

[Click here to enter text](#)

Student Handbook

Refer to: [Student Handbook](#)

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individuals to whom credit is given).

Additional guidelines on procedures in these matters may be found in the Office of Student Conduct: [Office of Student Conduct](#)

Moffett Library

Moffett Library provides resources and services to support student's studies and assignments, including books, peer-reviewed journals, databases, and multimedia materials accessible both on campus and remotely. The library offers media equipment checkout, reservable study rooms, and research assistance from librarians to help students effectively find, evaluate, and use information. Get started on this [Moffett Library webpage](#) to explore these resources and learn how to best utilize the library.

Grading

Table 1: Points allocated to each assignment

Assignments	Points
Quizzes (1 per chapter covered)	200
Major Exams (3)	300
Business Cases	200
Managerial Cases	100
Textbook Cases	100
Final Exam	300
Bonus Pts. (Maximum of 70 pts. possible)	
Total Points	1000

Table 2: Total points for final grade.

Grade	Points
A	900
B	800 to 899
C	700 to 799
D	600 to 699
F	Less than 600

Quizzes (20%)

A quiz will be given over all chapters of the text. All quizzes are equally weighted. The quizzes are taken through CONNECT. Specified dates of completion are found in CONNECT. Quizzes will consist of objective-type questions [TF or MC] from CONNECT. The text and hand-held calculator are permissible for quizzes. Utilization of any other material, electronic or otherwise, will result in a zero for that quiz. A student's lowest quiz score, even if 0, can be replaced with their final exam grade. Failure to take a quiz on the scheduled date without prior permission from the instructor will result in a zero for that quiz. Failure to take any quiz without prior approval will result either in an 'F' or 'I' (incomplete) for that quiz. If,

because of a truly unavoidable situation, you are absolutely not able to take a quiz at the scheduled time/date, it is your responsibility to contact your instructor well in advance to ask to take any quiz early. If a real, legitimate, last minute emergency occurs, it is your responsibility to contact me before the quiz begins.

Exams (30%)

Three major exams will be given. Each exam will involve calculation and derivation of answers as well as their interpretation and meaning. Questions will come from the text and notes. Exams will consist mostly of objective-type questions [TF or MC] from CONNECT. Using the text is permissible, but hand-held calculators are not permissible for exams. Utilization of any other material, electronic or otherwise, will result in a zero for that exam. A student's lowest exam score can be replaced with their final exam grade. Failure to take an exam on the scheduled date without prior permission from the instructor will result in a zero for that exam. Failure to take any exam without prior approval will result either in an 'F' or 'I' (incomplete) for the course. If, because of a truly unavoidable situation, you are absolutely not able to take an exam at the scheduled time/date, it is your responsibility to contact your instructor well in advance to ask to take the exam early. If a real, legitimate, last minute emergency occurs, it is your responsibility to contact me before the exam begins.

Business Stat Cases (20%)

All cases are (Textbook and Mgr.) are due by midnight 12/05/2026. Cases should be submitted to the appropriate submission folder on D2L.

A. Managerial Cases – Written Assignments (10%):

Three Managerial Cases (see below) are required. The goal of each case is to correctly understand a business situation, solve a real problem, and make a good business decision. Designated cases with specific formatting guidelines are attached at the end of this syllabus. Statistical output for these cases will be generated using SAS. More detailed information about this requirement can be found in the attachment [see Format for Managerial Case B. Textbook cases – Written Assignments (10%)

Four cases (see below) from the text are required. Statistical output for these cases will be generated using EXCEL. These written cases should be formatted in accordance with the end-of-chapter case studies – Writing with Data.

Final Exam (30%)

A comprehensive final exam will be given. This exam will be an objective-type exam [TF or MC]. For students enrolled in the in-person class, the final must be taken in-person at the scheduled date based on the final exam schedule. A student's final exam score can be used to replace their lowest exam or quiz score. For students who are Distance or on-line Learners, the exam instructions will be available via D2L.

Bonus Credit

Numerous videos can be found in D2L. Videos are provided in Parts I-III. Each Part (I-III) are synchronized with the three major exams. Students are awarded 1 bonus point for each video watched in its entirety. Potentially, 70 bonus points can be obtained by watching these videos.

Late Work

Late work is not accepted.

Make Up Work/Tests

Students are not permitted to make up missed assignments and tests. However, for legitimate reasons, as defined by the professor, the final exam score can be substituted for the missed assignment.

Important Dates

2026-2027 Academic Calendar

Fall Semester 2026*

Priority Application Date for Admission	March 1
Application Deadline for Admission	August 1
Faculty Meetings	August 17
Student Registration	April 1-August 24
Classes begin for Fall 16 week and Part of Term A	August 24
Change of Schedule and Late Registration	August 24-27
Labor Day - No classes	September 7
Census Day (12th Class Day)	September 8
20th Class Day	September 16
Deadline for December graduates to file for graduation	September 21
Priority Deadline for May graduates to file for graduation	October 5
Part of Term A Last Day for "W", 4:00 p.m.	October 7
(Drops after this date will receive grades of "F.")	
Spring 2027 Schedule of Classes available online	mid-October
Part of Term A ends	October 16
Part of Term B begin	October 17
Application Deadline for Admission Spring 2027	November 1
Last Day for "W" for Long Semester and Part of Term B, 4:00 p.m.	November 23
(Drops after this date will receive grades of "F.")	
Thanksgiving Holidays (Campus closed November 25th).	November 25-29
Classes resume	November 30
Last day of classes	December 4
Final examinations begin	December 5
Graduate Commencement	December 11
Undergraduate Commencement	December 12

Desire-to-Learn (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

Attendance

A. Attendance Policy:

Being an in-person course, physical classroom attendance is recommended, but not required. However, students are expected to access all videos and taped lectures for this course. Additionally, except for a limited number of situations, the instructor will not review class material nor reiterate class instructions to any student not regularly viewing class

videos or not attending class on regularly basis. Many important announcements are provided for this course. You are expected to log into D2L a minimum of once daily to check for updates and announcements via postings and email.

Use of personal electronic communication devices, other than through D2L, is not permitted during exams and students are required to disable any other electronic instruments during exams. Individuals holding devices that disrupt class may be asked to leave the class for the remainder of the session.

Expectation: Answers you provide in exams and case studies are expected to reflect logical reasoning, to be well articulated, including correct grammar and punctuation and to be clearly legible, in a manner and format that would be acceptable for a business report in a commercial setting. Students will be expected to develop a base knowledge in using SAS. Each student is expected to become sufficiently familiar with the Desire-2-Learn (D2L), as it will be a primary communication instrument for this class.

Online Computer Requirements

Taking an online class requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. ****Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.*** Computers are available on campus in various areas of the buildings as well as the Academic Success Center. ****Your computer being down is not an excuse for missing a deadline!!*** There are many places to access your class! Our online classes can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into [D2L](#).

Recording Classes

****Recording classes is generally prohibited without the professor's explicit permission.*** Such recordings, when permitted, are for personal use only and may not be uploaded to the internet or otherwise shared, transmitted, or published without the professor's prior consent. Some faculty may not permit recordings of their classes. When it is feasible and appropriate, students may record classes to accommodate disabilities under the Americans With Disabilities Act, with prior approval of Disability Support Services. Such recordings may not be uploaded to the internet or otherwise shared, transmitted, or published.

Instructor Class Policies

Lower Grades:

The instructor reserves the right to lower any student's final grade by a letter grade (i.e., A to B, D to F) for:

- (A) A negative, rude, unreasonably argumentative attitude in class, or
- (B) Repeatedly disrupting the class for any reason (tardiness), or
- (D) NOT showing respect for fellow classmates' questions or opinions, or
- (E) NOT following exam instructions

Academic Integrity:

With regard to academic honesty, students are referred to the “Student Honor Creed” of Midwestern State University Undergraduate Catalog, which may be found using the following MSU link: [Link to Student Honor Creed](#).

Plagiarism statement:

By enrolling in this course, the student expressly grants MSU a ‘limited right’ in all intellectual property created by the student for the purpose of this course. The ‘limited right’ shall include but shall not be limited to the right to produce the student’s work product in order to verify originality and authenticity, and educational purposes.

Correspondence:

All correspondence regarding grades or class issues must be conducted through email using MSU email or through D2L. It is recommended that student use and regularly monitor their MSU email and D2L account. In your correspondence with instructor, use the instructor’s email account, **not through D2L**. In your email to instructor, preface your text with ‘BUAD 5603 First, Last Name’ otherwise your text will be disregarded.

Nertiquette:

Students are expected to follow rules of common courtesy in all email messages, class discussions, chats, etc. Inappropriate or offensive messages will be forwarded to the appropriate authorities.

Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exist in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Student Wellness Center, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

Emergency Aid Resources for Basic Needs

Unexpected life circumstances can affect anyone. If you are experiencing challenges meeting basic needs—such as housing, utilities, food, transportation, healthcare, technology, textbooks or other life necessities, resources may be available to help. Visit the [Student Emergency Support and Resources webpage](#) to learn more, and explore emergency support

opportunities through MSU and how to access them. For additional information, please contact the Office of Student Affairs: Clark Student Center #108, (940) 397-7500, student.affairs@mstuexas.edu.

College Policies

Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.

Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

Campus Carry

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes has prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry](#).

Active Shooter

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [MSUReady – Active Shooter](#). Students are encouraged to watch the video entitled “Run. Hide. Fight.” which may be electronically accessed via the University police department’s webpage: [“Run. Hide. Fight.”](#)

Grade Appeal Process

Update as needed. Students who wish to appeal a grade should consult the Midwestern State University [MSU Catalog](#)

***Notice:** Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

Course Schedule:

Week or Module	Assignments	Assignmnets
Assignments from Connect	Start date	Due date
Chapter 1: Data and Data Preparation	8/25/2026	10/3/2026

Chapter 2: Data Visualization	8/25/2026	10/3/2026
Chapter 3: Summary Measures	8/25/2026	10/3/2026
Chapter 4: Introduction to Probability	8/25/2026	10/7/2026
Chapter 5: Discrete Probability Distributions	8/25/2026	10/7/2026
Chapter 6: Continuous Probability Distributions	8/25/2026	10/7/2026
Review Textbook cases and Intro to SAS	10/1/2026	10/8/2026
Exam I	10/1/2026	10/8/2026
Chapter 7: Sampling and Sampling Distributions	10/1/2026	11/1/2026
Chapter 8: Interval Estimation	10/1/2026	11/1/2026
Chapter 9: Hypothesis Testing	10/1/2026	11/1/2026
Chapter 10: Comparisons Involving Means	10/1/2026	11/1/2026
Chapter 11: Comparisons Involving Proportions	10/1/2026	11/1/2026
Review Mgr. Case I with SAS	10/1/2026	11/1/2026
Exam II	11/1/2026	11/5/2026
Chapter 12: Regression Analysis	11/3/2026	12/3/2026
Chapter 12: Regression Analysis	11/3/2026	12/3/2026
Chapter 13: More Topics in Regression Analysis	11/23/2026	12/3/2026
Review Mgr. cases	11/23/2026	12/3/2026
Review Mgr. Cases	11/23/2026	12/3/2026
Exam III	12/3/2026	12/4/2026
Bus. Cases (Text and Mgr.) due by midnight	No start date	12/5/2026
Final Exam (Thurs., Dec. 10	5:45-7:45	
Final Exam Schedule		

***Important note:** Tables are already set up for ADA compliance. If you wish to add another table, make sure do the correct compliance setup for tables which you can find in the [How To – Word Doc ADA Compliance PDF](#).

Textbook Cases - Writing with Data

All four of the textbook cases below are required. These written cases should be formatted in accordance with the end-of-chapter case studies – Writing with Data. The data for these cases is found in Appendices of the text, Appendix A - Big Data Sets: Variable Description and Data Dictionary. All cases are due by midnight on Wed., July01, 2026. Grading is based on these criteria: quality of evidence provided, organization, relevance of arguments, and language mechanics. Each of these criteria are evaluated on these five levels: Insufficient, Fair, Good, and Excellent.

A drop box folder will be set up in D2L for you to submit all four cases. Submit the individual files in WORD format. Provide the following information at the beginning of each case:

First, Last Name

Case number and title (i.e., Report 12.1 House_Price)

Report 2.1 College_Admissions,

Report 3.1 House Price,

Report 12.1 House_Price, and

Report 13.3 TechSales_Reps

Format for Managerial Case Writing Assignments

- Each student is responsible for completing **three** designated Managerial Case Reports (see list below for list). However, only one case per section (or exam) is required.
- Each case should include the following components:
 1. Statement of the problem
 2. Statistical Results
 3. Policy conclusions

Append the following to each case:

1. SAS Program code used
 2. SAS Output with tables referenced
- Use Microsoft's WORD processor to complete this assignment.
 - At the end of each case is an Assignment that students are to complete.
 - Students are required to identify relevant variables, choose the appropriate analysis plan, produce correct results, interpret their findings and make recommendations regarding the managerial issues presented.
 - Data sets for the various cases will be provided in the Contents section of D2L. Each case assignment should be based on the information provided in the case itself.
 - Consult the following case study for clarification about writing proper statistics reports: Kilgore Mfg. - Managerial Case Analysis by Instructor for this course.
 - Use one-inch margins throughout and either 10 or 12 character font.
 - In addition to the three General Learning Goals (GLC) stated above, this assignment is graded on the basis of accuracy, relevancy, neatness, style, thoroughness, and punctuality, as well as on the professionalism of your WORD and SAS output.
 - Significant penalties are assessed for late work.
 - A drop box folder will be set up in D2L for you to submit all three cases.
 - Missing even one case will entail severe penalties.
 - Provide the following information at the beginning of each case:
 - First, Last Name
 - Case title (i.e., Circuit, etc.)
 - Semester, Year
 - Screenshot of your SAS OnDemand Registration Profile
 - The following cases can be found in the CONTENT section of D2L. Only one case presentation per set is required:
 - Managerial Case Set I Glenco
 - Managerial Case Set II Circuit.
 - Managerial Case Set III Easton.
- All three Cases are due by midnight of Saturday, Dec. 05, 2026.
Grading scale: Excellent- 90+; Very Good-80+; Good-70+; Fair-70+; Insufficient below 60.

Specific Guidelines for Written Case Presentations

- First and foremost - remember that this is a managerial case presentation. Therefore, do not write it in an academic format, but rather in an easily readable and understandable format for a manager.
- Be sure to include **your name, case title, semester-year, and registration profile** at the top of the first page of your report. No cover sheet is required.
- Be sure to include an **introductory paragraph** as to what the case all about, or what problems need to be addressed.
- A second section presenting your **key statistical results** should follow your introductory paragraph. Tables should be clearly numbered and titled. All tables should be referenced

by their table number. This section should include all important statistical results on which your policy recommendations are based.

- **Following the statistical results section**, a well-defined **summary and conclusions**, should be included along with clearly stated policy recommendations.
- If you happen to use descriptive statistics with EXCEL or SAS, you should exclude information that is not relevant for the case. For example: Would a manager actually care about kurtosis, or whether certain measures are carried to the fourth decimal place?
- Be **sure** to provide an appropriate title and number for each chart, graph, or table you use. Also, make sure that each chart, graph, or table is referenced in the body of the text. Chart, graphs, or tables should be in sequential order.
- Write in paragraph form, not in bullet form, with complete sentences and correct grammar.
- For most histograms, use class intervals that are easy to read, such as in intervals of 10, 100, or 1000.
- Except where fractional values are relevant, use whole numbers. For instance, is it necessary to know that the average age is 28.4621, or is 28 years sufficient?
- Do **not** include output from **Proc Contents** or **Proc Print** or **Data input statements**.
- APPENDIX I – Include **only** SAS code **used**.
- APPENDIX II – Include **only** SAS statistical results **used**. At the very top of the first page of this appendix, be sure to **screenshot** your ODA SAS registration profile. Do not type the registration name or number.
- Submit your cases in D2L under ASSESSMENTS-ASSIGNMENTS in appropriate submission folder for MGR cases. All submissions should be in **WORD** format.
- Late work will be penalized.
- Penalties are assessed for failure to adhere to guidelines stated above.