

Course: **BU305-D & ND Business Statistics**  
Credit: 3 Credit Hours, Cycle 5  
Semester: Spring 2024  
Date: Tuesday & Thursday 1:00pm-2:20pm  
Instructor: Allen Prodoehl  
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## I. DESCRIPTION

The course is designed to acquaint students with major data-driven tools used in business analysis. Mathematical formulas will be demonstrated to help students in analysis of data management. Students should possess skills in algebra. Students will learn how to choose the correct tool(s) for their specific application(s). (Prerequisite: BU200)

## I. SYLLABUS DISCLOSURE

The instructor reserves the right to make changes to this syllabus at any time during the course, but any changes made will only be done after clearly communicating the need for the change and the specific change to be made via in-class announcement and Canvas announcement.

## II. OBJECTIVES

A. General competencies to be achieved. The student will:

1. Understand business is complex and requires effective management to succeed. (PLO, 1,4,5,6)
2. Evaluate complex business models to understand need for data skills. (PLO, 4,5,6)
3. Identify and Interpret real problems to determine skills/tools needed for manual and computer calculations. (PLO 4,5,6)
4. Understand the statistical method of converting data into information. (PLO 4,5,6)
5. Interpret graphical representations of data. (PLO 4,5,6)
6. Describe a number of data-driven tools. (PLO 4,5,6)

- B. Specific competencies to be achieved. The student will:
1. Understand an overview of statistical concepts. (SLO 2,3)
  2. Understand data collection, probability, and distribution of data. (SLO 1-4)
  3. Understand methods of estimation, hypothesis testing, and statistical analysis. (SLO 1-5)
  4. Understand the roles of operations, management, and marketing in use of data. (SLO 1-4)
  5. Practice statistical methods in class & in individual projects. (SLO 1-6)

## II. REQUIREMENTS

- A. Read text, complete assignments, and participate in assessment.
- B. Completion of course materials in each section according to the prescribed schedule.
- C. Complete assigned problems & case studies.
- D. Complete final exam

Students with disabilities have the responsibility of informing the Accommodations Support Coordinator ([aso@calvary.edu](mailto:aso@calvary.edu)) of any disabling condition that may require support.

*Plagiarism is defined as copying any content without identifying the source. This also includes taking another person's or AI entity's ideas or constructs and presenting them as your own. The use of AI generated content in student work is prohibited (even if cited) as it does not represent original work created by the student and is an unreliable aggregate of ideas from other sources. Plagiarism of any kind will not be tolerated.*

Business Administration students must write papers according to the Publication Manual of the American Psychological Association, **Seventh edition (APA Manual)**.

The Clark Academic Center ([learning@calvary.edu](mailto:learning@calvary.edu)), located in the library building, is dedicated to providing free academic assistance for all CU students. Student tutors aid with all facets of the writing process, tutor in various subject areas, prepare students for exams and facilitate tests. Please take advantage of this service.

### III. METHODS

- A. Reading assignments
- B. Assigned problems
- C. Case Studies and Final Exam

### IV. MATERIALS - REQUIRED

*The Bible is a required textbook in every course at Calvary University. To facilitate academic level study, students are required to use for assignments and research an English translation or version of the Bible based on formal equivalence (meaning that the translation is generally word-for-word from the original languages), including any of the following: New American Standard (NASB, English Standard Version (ESV), New King James (NKJV), or King James (KJV). Other translations and versions based on dynamic equivalence (paraphrases, and thought-for-thought translations like NLT and NIV) may be used as supplemental sources. Please ask the professor if you have questions about a particular translation or version.*

Anderson, Alan (2013). *Business Statistics for Dummies* ISBN #978-1118630693 **List price \$16.39**

# I. TENATIVE CLASS SCHEDULE

Date/Week	Class Topic Description	Assignments	Reading
Wk 1	Course Introduction – ‘What is Statistics?’ and ‘Types of Data’ (PLO 1-6; SLO 1-4)	Class Topic Related (PLO 1-6; SLO 1-4)	See Canvas TBA (PLO 1-6; SLO 1-4)
Wk 2	Variability, Graphical Techniques, Control Charts (PLO 1-5; SLO 1,2,5)	Class Topic Related (PLO 1-6; SLO 1,2,5)	See Canvas TBA (PLO 1-6; SLO 1,2,5)
Wk 3	Numerical Descriptive Techniques & Data Collection, Forecasting (PLO 1-6; SLO 1,2,5)	Class Topic Related (PLO 1-6; SLO 1,2,5)	See Canvas TBA (PLO 1-6; SLO 1,2,5)
Wk 4	Probability & Random Variables & Estimation (PLO ; SLO ) (PLO 1-6; SLO 1,2,5)	Class Topic Related (PLO 1-6; SLO 1,2,5)	See Canvas TBA (PLO 1-6; SLO 1,2,5)
Wk 5	Hypothesis Testing, Population Comparisons, Variance Analysis (PLO 1-6; SLO 1,2,5)	Class Topic Related (PLO 1-6; SLO 1,2,5)	See Canvas TBA (PLO 1-6; SLO 1,2,5)
Wk 7	Goodness-of-fit test, simple linear regression. (PLO 1-6; SLO 1,2,5)	Class Topic Related (PLO 1-6; SLO 1,2,5)	See Canvas TBA (PLO 1-6; SLO 1,2,5)
Wk 7	TBA (PLO 1-6; SLO 1,2,5)	Class Topic Related (PLO 1-6; SLO 1,2,5)	See Canvas TBA (PLO 1-6; SLO 1,2,5))
Wk 8	Review (PLO 1-6; SLO 1,2,5)		

## Grading:

Discussion	25%
Homework Assignments	75%
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	100%

## RUBRIC FOR THE EVALUATION OF WRITTEN ASSIGNMENTS

CRITERIA	NEEDS IMPROVEMENT Minimum Points	SATISFACTORY Medium Points	EXCEPTIONAL Maximum Points
<b>CONTENT</b> 75%	The writer does not demonstrate cursory understanding of subject matter, and/or the purpose of the paper is not stated clearly. The objective, therefore, is not addressed and supporting materials are not correctly referenced.  <i>48.9 or FEWER POINTS</i>	The writer demonstrates limited understanding of the subject matter in that theories are not well connected to a practical experience or appropriate examples, though the attempt to research the topic is evident, and materials are correctly referenced.  <i>49 to 65.9 POINTS</i>	The writer demonstrates an understanding of the subject matter by clearly stating the objective of the paper and links theories to practical experience. The paper includes relevant material that is correctly referenced, and this material fulfills the objective of the paper.  <i>66 to 75 POINTS    Grade:</i>
<b>ORGANIZATION</b> Including Readability & Style 20%	Paragraphs do not focus around a central point, and concepts are disjointedly introduced or poorly defended (i.e., stream of consciousness).  The writer struggles with limited vocabulary and has difficulty conveying meaning such that only the broadest, most general messages are presented.  <i>15.9 or FEWER POINTS</i>	Topics/content could be organized in a more logical manner. Transitions from one idea to the next are often disconnected and uneven.  Some words, transitional phrases, and conjunctions are overused. Ideas may be overstated, and sentences with limited contribution to the subject are included.  <i>16 to 18.9 POINTS</i>	The writer focuses on ideas and concepts within paragraphs, and sentences are well-connected and meaningful. Each topic logically follows the objective and the conclusion draws the ideas together.  The reading audience is correctly identified, demonstrated by appropriate language usage (i.e., avoiding jargon and simplifying complex concepts). Writing is concise, in active voice.  <i>19 to 20 POINTS    Grade:</i>
<b>FORMAT</b> 4%	The paper does not conform to Turabian or APA style. Students must use one or the other correctly.  <i>0 POINTS</i>	The paper does not conform completely to Turabian or APA style (e.g., margins, spacing, pagination, headings, headers, citations, references, according to the appropriate style guide).  <i>Up to 2 POINTS</i>	The paper is correctly formatted to style (e.g., margins, spacing, pagination, headings, headers, citations, references, according to the <i>appropriate style guide</i> ).  <i>2.1 to 4 POINTS    Grade:</i>
<b>GRAMMAR, PUNCTUATION, &amp; SPELLING</b> 1%	The writer demonstrates limited understanding of formal written language use; writing is colloquial (i.e., conforms to spoken language). Grammar and punctuation are consistently incorrect. Spelling errors are numerous.  <i>0 POINTS</i>	The writer occasionally uses awkward sentence construction or overuses and/or inappropriately uses complex sentence structure. Problems with word usage (e.g., evidence of incorrect use of Thesaurus) and punctuation persist causing difficulties with grammar.  <i>0.5 POINTS</i>	The writer demonstrates correct usage of formal English language in sentence construction. Variation in sentence structure and word usage promotes readability. There are no spelling, punctuation, or word usage errors.  <i>1 POINT    Grade:</i>