

Colorado State University - Pueblo
Hasan School of Business
Syllabus for BUSAD 265, Inferential Statistics and Problem Solving
MW 11:15-12:35 & 1:00-2:20, HSB 110, Fall 2017

Instructor Name: Justin O. Holman, Ph.D.

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Course Page: www.justinholman.com/teaching

Office Hours: MW 12:35-1:00, 2:20-4:00, TTh 12:35-1:00

Course Description: This class will provide an introduction to data analysis and inferential statistics. Topics will include Stemplots, Histograms, Boxplots, Measures of Central Tendency, Standard Deviation and Variance, Scatterplots, Linear Regression, Normal Distribution, Z-Scores, Design of Experiments, Census, Samples, Surveys, Probability, Estimation, Confidence Intervals, Significance Testing, and ANOVA. See the Schedule below for details.

Prerequisites: Math 121 or equivalent

Course Objectives/Instructional Methods: Students will learn to visualize, summarize and analyze numeric data. Students will also learn to apply methods of inferential statistics to make estimates, assign probabilities and conduct significance tests.

Course Materials:

Textbook: [*Introduction to the Practice of Statistics 6th Ed.*, by Moore, McCabe and Craig](#)

Video Series: [*Against All Odds*](#) by Annenberg Learner

Collaboration Technology: [Slack](#)

Course Requirements:

Grades for the course will be based on classroom activities, exercises, midterm exams and a comprehensive final exam.

- **Assignments (20%)** Students will complete assignments to reinforce concepts and lesson materials presented. Assignments may be submitted anytime (via upload to Slack) but timeliness counts, meaning those who complete exercises earlier will receive better scores. You may work together on assignments but you must submit your own work.
- **Midterm Exams (3 exams @ 20% each = 60%)** Students will take three in-class mid-term exams to measure comprehension of materials. If a student misses a midterm due to an excused absence, the Final Exam score will determine the missed midterm score; no other make-up opportunity will be provided.
- **Final Exam (20%)** Students will take a comprehensive final exam during Finals Week.

Grading: Each grading component will be assigned a score expressed as a percentage. The weighted average of these percentages will determine your final grade. Standard grading thresholds will apply, i.e., $\geq 90\%$ will earn an A, $\geq 80\%$ a B, $\geq 70\%$ a C, $\geq 60\%$ a D, and $< 60\%$ an F. These thresholds may be lowered by the instructor; they will not be raised.

Classroom Etiquette: Professional behavior is expected at all times. Disruptive behavior in the classroom will not be tolerated. Anyone causing a disturbance will be asked to leave. Multiple infractions will result in referral to Office of Student Judicial Affairs.

Accommodations:

Some students may require special accommodation, for a variety of reasons, to achieve learning objectives. I will do my best to facilitate such requests. Please email or see me during office hours to make arrangements.

This University abides by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, which stipulates that no student shall be denied the benefits of an education "solely by reason of a handicap." If you have a documented disability that may impact your work in this class and for which you may require accommodations, please see the Disability Resource Coordinator as soon as possible to arrange accommodations. In order to receive accommodations, you must be registered with and provide documentation of your disability to: the Disability Resource and Support Center, which is located in the Library and Academic Resources Center, Suite 169.

Academic Dishonesty:

Academic dishonesty is any form of cheating which results in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own. In cases of academic dishonesty, the instructor will inform the chair of the department prior to implementation of punitive action. Academic dishonesty is grounds for disciplinary action by both the instructor and the Dean of Student Services and Enrollment Management. Any student judged to have engaged in academic dishonesty

may receive a failing grade for the work in question, a failing grade for the course, or any other lesser penalty which the instructor finds appropriate. To dispute an accusation of academic dishonesty, the student should first consult with the instructor. If the dispute remains unresolved, the student may then state his or her case to the department chair (or the dean if the department chair is the instructor of the course).

Academic dishonesty is a behavioral issue, not an issue of academic performance. As such, it is considered an act of misconduct and is also subject to the University disciplinary process as defined in the CSU-Pueblo Student Code of Conduct Policies and Procedures Manual. Whether or not punitive action has been implemented by the faculty, a report of the infraction should be submitted to the Dean of Student Services and Enrollment Management who may initiate additional disciplinary action. A student may appeal a grade through the Academic Appeals Board. The Dean of Student Services and Enrollment Management's decision may be appealed through the process outlined in the Student Code of Conduct Policies and Procedures Manual.

Schedule of Topics and Exam Dates*:

Aug 21 Intro to Statistics
Aug 23 Stemplots and Histograms
Aug 28 Measures of Center and Boxplots
Aug 30 Standard Deviation and Normal Curves
Sep 4 Normal Calculations and Checking Assumptions of Normality
Sep 6 Review
Sep 11 Exam 1
Sep 13 Scatterplots and Fitting Lines to Data
Sep 18 Correlation and Two-Way Tables
Sep 20 Question of Causation and Designing Experiments
Sep 25 Census and Sampling + Samples and Surveys
Sep 27 Review
Oct 2 Exam 2
Oct 4 Intro to Probability and Probability Models
Oct 9 Random Variables and Binomial Distributions
Oct 11 Sampling Distributions and Control Charts
Oct 16 Confidence Intervals
Oct 18 Tests of Significance
Oct 23 Small Sample Inference for One Mean
Oct 25 Comparing Two Means
Oct 30 Inference for Proportions
Nov 1 Inference for Two-Way Tables
Nov 6 Inference for Regression
Nov 8 One-Way ANOVA
Nov 13 Review
Nov 15 Exam 3
Nov 20 Thanksgiving Break
Nov 22 Thanksgiving Break
Nov 27 Summary and Grade Reports
Nov 29 Review for Final Exam
Dec 6 Final Exam for 1:00 section @ 1pm
Dec 7 Final Exam for 11:15 section @ 10:30am

* Subject to change