

Colorado State University (Pueblo), Hasan School of Business, Fall 2016

**BUSAD 265 – Inferential Statistics and Problem Solving**

Section 1: MW 11:15-12:35, HSB 110

Section 2: MW 1:00-2:20, HSB 110

Instructor: Justin O. Holman, PhD

Office Hours: HSB 253, MW 10-11:15am, 3:45-5pm

Course Page: <http://www.justinholman.com/teaching/>

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**Overview:** This class will provide an introduction to data analysis and inferential statistics. Topics will include Stemplots, Histograms, Box Plots, Central Tendency, Variance, Probability, Normal Distribution, Sampling, Estimation, Confidence Intervals, Significance and Hypothesis Testing.

**Prerequisites:** MATH 121 or equivalent.

**Course Materials:**

**Textbook:** *Introduction to the Practice of Statistics 6th Ed.*, by Moore, McCabe and Craig

**Video Series:** Against All Odds

**Software:** Google Sheets

**Course Format:** This will *not* be a traditional lecture class. Instead, we will use a “blended” approach. See [https://en.wikipedia.org/wiki/Blended\\_learning](https://en.wikipedia.org/wiki/Blended_learning) or [http://en.wikipedia.org/wiki/Flip\\_teaching](http://en.wikipedia.org/wiki/Flip_teaching).

**Grading Components:** There will be **2 Midterm Exams** (30% each), a comprehensive **Final Exam** (30%) and **Classroom Activities** (10%). Each exam will have 2 parts. Part 1 will be a take-home data analysis project and Part 2 will be an in-class exam with a combination of problem solving, short essay and/or multiple choice questions. During most class periods students will complete an activity in class.

**Grading Criteria:** 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 the classroom. Multiple infractions will result in referral to the Office of Student Judicial Affairs.

**Special 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.

**Court of Appeals:** If a student is unable to attend class, misses an exam or fails to complete an assignment the score or grade assigned will be zero. Depending on circumstances, a makeup opportunity may be granted. Students may also request a review of an exam or assignment score. The Court of Appeals will only accept requests submitted via email to provide a communication trail and avoid misunderstandings.

**Course Outline\*:**

<u>Week</u>	<u>Topic</u>
1	Introduction to Data Analysis
2	Stemplots and Histograms
3	Measures of Central Tendency, Percentiles, Boxplots
4	Variance & Standard Deviation, Normal Curves
5	Z-Scores, Standard Normal Probabilities
6	Exam 1
7	Design of Experiments, Census & Sampling
8	Samples & Surveys, Intro to Probability
9	Probability Models, Random Variables
10	Sampling Distributions, Confidence Intervals
11	Tests of Significance, Inference for Proportions
12	Small Sample Inference for One Mean, Comparing 2 Means
13	Exam 2
14	Thanksgiving Week
15	Comprehensive Review
16	Final Exam

**\* Subject to revision.**