

**CSU-Pueblo Hasan School of Business**  
**Fall 2025 Syllabus**  
**BUSAD 360 Advanced Statistics**  
**M 1:00-2:20 in HSB 111**

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

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**Office Hours:** MTTh 2:20-3:00 or by appointment

**Course Description:** This class will explore advanced techniques in business statistics with a focus on applied regression modeling, Monte Carlo simulation and exploratory data visualization. Students will learn to analyze data and build models and simulations in a spreadsheet environment with Google Sheets and Microsoft Excel.

**Instructional Methods:** *Hybrid*. Traditional in-person, face-to-face once per week supplemented with extensive online content.

**Course Objectives/Student Learning Outcomes (SLOs):** Students will learn to utilize Spreadsheets to mine large data sets, identify correlations, build regression models, simulate stochastic processes and produce useful data visualizations. Focus on spreadsheet environment.

**Prerequisites:** BUSAD 265 or equivalent

**Expected student effort:** 2250 minutes

**Credit hours:** 3

**Materials:**

- Text: [Optional] [Business Statistics 7th Ed., by Ken Black](#); or [Intro to the Practice of Statistics 6th Ed., by Moore et al.](#)
- Courseware/Video/Software: Google Sheets, Microsoft Excel

**Course Requirements:**

- Weekly Quiz Scores: Attendance, participation, comprehension (40%)
- Projects and Presentations: Applied data analysis projects (30%)
- Final Exam: Comprehensive final (30%)

**Grading:** Each grading component will be assigned a percentage score. The weighted average of these scores 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.

**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 the Office of Student Judicial Affairs or similar.

**Accommodations:**

<https://www.csupueblo.edu/disability-resource-and-support-center/faculty-staff-resources.html>

If you have a documented disability that may impact your work in this class and for which you

may require accommodations, please see Disability Resources as soon as possible to arrange services. Disability Resources is located in OSC 104 and can be reached by phone (719-549-2648) and email ([csup\\_dro@csupueblo.edu](mailto:csup_dro@csupueblo.edu)).

**Starfish Performance Notifications:**

Starfish notifications inform you and your academic success team on your performance in this class. Reading these emails and/or texts and taking the suggested actions is highly encouraged for your success. Please access Starfish through PAWS to view your kudos or flags. You may also access Tutoring and request assistance from many other services through Starfish.

**Course Evaluations:**

Faculty are required to set aside a time during a class period for student course evaluation. The evaluation period will take place between the 87% and 100% courses timeframe. Please be prepared to complete your course evaluation digitally during the final week of class.

**Reference for Concerns, Counseling, Academic Misconduct, Institutional Equity:**

<https://www.csupueblo.edu/provosts-office/doc/ay2025-26-syllabus-reference.pdf>

**Important Dates (subject to change):**

- Project Deadlines: Sep 15, Oct 13, Nov 17
- Final Exam: Dec 15 (Mon) at 1-3:20p

**Class Schedule (subject to change):**

<u>Week</u>	<u>Topics</u>
1	Introduction, Sheets, DataCamp
2	Pivot tables, Histograms, Scatterplots
3	Correlation, Linear Regression
4	Curve-fitting, Time Series
5	Project 1
6	Multiple Regression
7	Variable selection
8	Interaction, Dummy variables, Multicollinearity
9	Regression Modeling
10	Project 2
11	Intro to Random Numbers and Simulation
12	Discrete and Continuous Distribution
13	Monte Carlo Simulation
14	<i>Thanksgiving</i>
15	Project 3
16	Review for comprehensive final
17	Finals Week

**Generative AI Statement:**

Use of generative AI technology is encouraged.