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Course Number and Title: BUSAD 560 Managerial Analytics

Course Description: This class will explore the principles, methods, tools and best practices in contemporary business analytics from a management perspective. Students will study descriptive, predictive and prescriptive analytics with technical subtopics including regression analysis, machine learning, data visualization and simulation. The purpose of the course is to provide future managers with the necessary understanding of analytics to lead contemporary organizations who want to utilize analytics in pursuit of company objectives.
Prerequisites: None

Course Objectives/Instructional Methods: This course will be presented as an online elective within the fully online MBA program. Students will learn how analytics can be used to pursue and support corporate objectives.
Expected student effort: 2250 minutes
Credit hours: 3

Student Learning Outcomes (SLOs)
Students will develop (1) knowledge of advanced quantitative problem solving skills, (2) knowledge of contemporary computing technologies, and (3) experience interpreting data sets and analytics in an applied business context.

Required Text(s) and Other Materials:
- Text: "*Managerial Analytics*" by M. Watson and D. Nelson
- Software: Google Sheets, Microsoft Excel
- Courseware: DataCamp.com

Course Grading Components:
- Discussion: Participation in weekly discussions, 7 x 20 points each = 140 points
- Assignments: Assigned work for each module, 7 x 100 points each = 700 points
- Final Exam: Comprehensive Exam, 1 x 160 points = 160 points
- Total: 1000 points

Grading: Each grading component will be assigned a point score. The sum of these points will determine your final grade. Standard grading thresholds will apply, i.e., >=900 points will earn an A, >=800 a B, >=700 a C, >=600 a D, and <600 an F.

Accommodations: Colorado State University-Pueblo 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 & Support Center 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 & Support Center, which is located in the Library and Academic Resources Center, Suite 169.

Mandatory Reporting:
Colorado State University-Pueblo is committed to maintaining respectful, safe, and nonthreatening educational, working, and living environments. As part of this commitment, and in order to comply with federal law, the University has adopted a Policy on Discrimination, Protected Class Harassment, Sexual Misconduct, Intimate Partner Violence, Stalking, & Retaliation. You can find information regarding this policy, how to report violations of this policy, and resources available to you, on the Office of Institutional Equity's website (www.csupueblo.edu/institutional-equity).

Please familiarize yourself with the reporting requirements of this policy. Because I am a faculty member, I am a "Responsible Employee." That means I have to report to the Director of the Office of Institutional Equity if you tell me that you were subjected to, or engaged in, of any of the following acts: *discrimination, protected class harassment, sexual misconduct, intimate partner violence, stalking, and retaliation*.

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 dishonest, 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.

Early Performance Survey:
This course participates in the Starfish student success program. Early in the semester, information about student performance in this class will be communicated to each student by email and/or text from Starfish. Attention to suggested actions is encouraged. This information is also available to academic advisors and others involved in supporting student success. Your advisor may then ask to meet with you to discuss your plans for success. The program is designed to promote success among students through proactive advising, and through referral to appropriate resources. Efforts to inform and assist students continues throughout the semester with a mid-semester survey, and instructor concerns or kudos can be posted to Starfish at any time.

Schedule (subject to change):

Module	Topic	Assignment (Available Points)
1	Intro to Managerial Analytics	Assignment (100) Discussion (20)
2	Descriptive Analytics and Data Visualization	Assignment (100) Discussion (20)
3	Predictive Analytics: Time Series Analysis	Assignment (100) Discussion (20)
4	Predictive Analytics: Multiple Regression	Assignment (100) Discussion (20)
5	Prescriptive Analytics: Optimization	Assignment (100) Discussion (20)
6	Machine Learning	Assignment (100) Discussion (20)
7	Data Scientist Technology Tool Kit	Assignment (100) Discussion (20)
8	Review and Final Exam	Final Exam (160)