CIS C250: INTRODUCTION TO DATA ANALYTICS

Item	Value
Curriculum Committee Approval Date	09/15/2017
Top Code	070800 - Computer Infrastructure and Support
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Students will explore the topics of data analytic thinking and its applicability to the business world. The practical application of business intelligence and data analysis will be experienced in a hands-on project. The process of business decision-making will be applied with an emphasis on data mining. Careers and emerging trends in the field will be evaluated. ADVISORY: CIS C111 and CIS C240 and ENGL C1000 and STAT C1000. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Describe the fundamental body of knowledge in the business intelligence field and explain the “big picture” of the chosen discipline.
2. Apply the methods, techniques, and tools relevant to data analytics.
3. Present, evaluate, and critique the business decisions of peers and professionals.

Course Objectives

- 1. Create business intelligence solutions for different business intelligence targets and users.
- 2. Apply analytical techniques used in business intelligence systems.

Lecture Content

Exploring Data Probability and Decision-Making Under Uncertainty Statistical Inference Regression Modeling Optimization and Simulation Modeling Data Mining

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

This course will utilize a combination of lecture, hands-on guided laboratory assignments, classroom/discussion student interactions, problem solving, quizzes, tests, and troubleshooting assignments to achieve the goals and objectives of this course. All instructional methods are consistent across all modalities.

Reading Assignments

Data Analysis and Decision-Making Probability and Probability Distributions Regression Analysis and Modeling

Writing Assignments

Portfolio Project Presentations with PowerPoint slides Course Reflections

Out-of-class Assignments

Data mining Hypothesis testing Optimization modeling

Demonstration of Critical Thinking

Students will provide critical feedback for others projects and well-known database storage systems discussed in class.

Required Writing, Problem Solving, Skills Demonstration

Skills will be demonstrated during presentations throughout the course. Presentations include PowerPoint slides created by individual and student teams, oral presentations, and visual demonstrations of the materials they have created.

Eligible Disciplines

Computer information systems (computer network installation, microcomputer ...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Computer service technology: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Albright, S. Christian; Winston, Wayne L. Business Analytics: Data Analysis and Decision Making, 7th ed. Cengage, 2022

Other Resources

1. Coastline Library 2. OER - Open Educational Resources