Passaic County Community College
Academic Year: 2023 - 2024
Standard Syllabus

Department Chair: Dr. Thomas Cox

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Course Code: BU 206

Course Title: Business Statistics I

Department: Business Administration

Semesters Offered: Fall, Spring, Summer

Catalog Description/Course: This course teaches a business problem-solving approach using statistics to solve business-related problems. Topics include summarizing qualitative and quantitative data, preparation and analysis of cross tabulation tables, scatter diagram and correlation coefficient. Measures of central tendency, dispersion, probability, sampling, estimation, hypothesis testing are discussed in detail.

Pre-requisites: BU 101

Pre/Co-requisites: _ENS 106, MA 025 or MA 025B or MA 080_

Credits: 4   **Lecture Hours:** 4   **Lab/Studio Hours**: 0   **Clinical/Fieldwork Hours:** 0

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Required Textbook/Materials: All sections OER – textbook: Introductory Business Statistics, openstax.org

Additional Time and Supplemental Requirements: Based on a 15 week semester, students are expected to complete approximately 6 hours per week of assigned work outside of class.

Course Learning Outcomes: Upon completion of this course, students will be able to:
1. Distinguish between type of data & statistics
2. Understand & develop tabular and graphical statistic presentations
3. Calculate measures of location and variability
4. Calculate simple probability
5. Calculate probability using Empirical Rule & Chebyhev Theorem (supplementary topic)
6. Calculate relationship probability
7. Calculate Binomial, Geometric and Poisson probability
8. Calculate continuous probability
9. Distinguish between different random sampling options and determine probabilities using (
10. Determine point estimate and interval estimates from large and small samples.
11. Perform a hypothesis test for one sample.
12. Simple linear regression

General Education Outcomes: This is not a general education course.

Grading Standard:

Three (3) quizzes ………………….…   60% (20% each)
Comprehensive Final………………..   40%

Course Content: Schedule and suggested topics, readings, and assignments subject to change based on instructor and instructional resources.

- **Introduction**
  - Statistical Applications for Business
  - Data Collection
  - Quantitative data/Qualitative Data
  - Descriptive Statistics/Inferential Statistics
  - Scales of Measurement
- **Descriptive Statistics**
  - Frequency/Relative Frequency Distribution
  - Cumulative Distributions
  - Stem and Leaf/Cross Tabulations/Scatter Diagrams
  - Measures of Central Tendency
  - Measures of Variability
  - Covariance/Correlation Coefficient
- **Probability**
  - Simple Probability
  - Empirical Rule/Chebyshev Theorem.
  - Marginal/Joint/Condition Probabilities
  - Statistical dependences & Statistical Independence
  - Expected Value
  - Binominal Probability distribution
  - Poisson Probability Distribution
  - Geometric Probability Distribution
  - Sampling distribution
- **Estimation**
  - Point Estimation
  - Interval Estimation (confidence levels)
  - Sample Size
- **Hypothesis Testing**
  - Test one sample
- **Simple Linear Regression**
  - Least sums method
  - Test for significance – coefficient of determination

College Policies: For information regarding:
- PCCC's Academic Integrity Code
- Student conduct Code
- Student Grade Appeal Process

Please refer to the PCCC Student Handbook and PCCC catalog.

Panther Alert: The College will announce delayed openings, closing, and other emergency situations through the Panther Alert System. Students are encouraged to sign up for Panther Alert Notification by logging into

their student accounts through the PCCC website at www.pccc.edu and follow Panther Alert system instructions.

Notification for Students with Learnings Disabilities: If you have a disability, and believe you need accommodations in this class, please contact the Office of Accessibility (formerly Disability) Services at 973-684-6395, or email ods@pccc.edu. You should do so as soon as possible at the start of each semester. If you require testing accommodations, you must remind me (the instructor) one week in advance of each test.