MATH 115 Introduction to Probability and Statistics

This course introduces the concepts of and need for statistics, collection, tabulations, graphical representation of statistical data, frequency distributions, measures of central tendency, measures of dispersion and skewness, Kurtosis, probability and probability distributions, the binomial, the Poisson, and the normal distributions, estimating means and confidence intervals, and correlation and regression.

(Pre-requisites: MATH 098 OR placement exam score)

Course Learning Outcomes:

By the end of the course, students will be able to:

1. Describe the concepts and essential processes of probability and statistics.
2. Recognize the connection between the theories and concepts of probability and statistics and real-life situations
3. Calculate basic parameters for probability distributions and statistical data sets.
4. Use basic software and IT packages to solve problems occurring in real life situations

Textbook & Course Materials:

- Business Statistics, Global Edition, Pearson ,10th Edition,David F. Groebner, Patrick W. Shannon, Phillip C. Fry. ISBN-13: 9781292220406

Course Content:

1. Graphs, Charts, and Tables- Describing Your Data
2. Describing Data Using Numerical Measures
3. Introduction to Probability
4. Discrete Probability Distribution
5. Introduction to Continuous Probability Distributions
6. Estimating Single Population Parameters
7. Introduction to Hypothesis Testing
8. Introduction to Linear Regression and Correlation Analysis