BUS105 Statistics

Level: 1

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY REGULAR SEMESTER

Synopsis:

This course provides students with an understanding of statistical concepts and techniques to generate information for decision-making. The course covers descriptive statistics, probability distributions, sampling distribution, interval estimation, hypothesis testing, ANOVA and regression. Emphasis will be placed on acquiring the analytical and interpretative skills needed to understand statistical findings.

Topics:

- Describing Data: Frequency Tables, Frequency Distributions and Graphic Presentation.
- Describing Data: Numerical Measures
- Discrete Probability Distributions
- Continuous Probability Distributions
- Sampling Methods
- Central Limit Theorem
- Point Estimate
- Confidence Intervals for Population Mean
- Confidence Intervals for Population Proportion
- Finite-Population Correction Factor
- Choosing an Appropriate Sample Size
- One-Sample Test of Hypothesis
- Two-Sample Test of Hypothesis
- Comparing Two Population Variances
- Comparing Multiple Population Means
- Correlation Analysis
- Simple Linear Regression Analysis
- Multiple Regression Analysis

Textbooks:

BUS105 Study Guide
ISBN-13: SG-1252

Basic statistics for business and economics 10th Lind, D. A., Marchal, W. G., & Wathen, S. A.
McGraw-Hill
ISBN-13: 9781264363971

Learning Outcome:

- Describe statistical data.
- Define probability, mean and standard deviations for a probability distribution.
- Explain the probabilities for sample mean and proportion.
- Identify Confidence Interval for the mean and proportion of a population.
- Execute the Hypothesis Testing (both one-sample and two-samples) for the population mean and proportion population.
- Apply an Analysis of Variance (ANOVA) procedure to compare the means of independent random samples.
- Implement and fit a Linear Regression Line to a set of sample data and interpret the results.
- Interpret the results from Multiple Regression Analyses.
- Use a suitable computer software to perform data analyses according to the statistical concepts and techniques learnt from this course including data summary and presentation, probability computation, confidence intervals, hypothesis tests and linear and multiple regression analyses.
- Report and explain the outcome of a particular statistical analysis performed for decision-making.
- Summarise statistical analyses and findings through oral presentations in class or on recorded video.
- Demonstrate the essential knowledge and interpersonal skills to work effectively in a team.
- Show well-developed written proficiency in statistical report.

Assessment Strategies - Regular Semester (Daytime Class):

Components	**Description**	**Weightage Allocation (%)**
Overall Continuous Assessment	GROUP BASED ASSIGNMENT 1	20
	PARTICIPATION 1	10
	TUTOR-MARKED ASSIGNMENT 1	20
Overall Examinable Components	Written Exam	50
Total		**100**

*The information listed is subject to review and change.