LONG ISLAND UNIVERSITY DEPARTMENT OF MATHEMATICS

SYLLABUS FOR MATHEMATICS 100 (Semester One)

Prerequisite: Mathematics 10, 15, 16, or higher

Textbook: Elementary Statistics (Ninth Edition) by Mario F. Triola (Pearson/Addison-Wesley, 2004)

Recommended Calculator: TI-30X-IIS or TI-83 Plus (or TI-84 Plus)

Note: Each class meeting lasts 75 minutes.

CHAPTER	UNIT: Topics	WEEKS
1	Introduction to Statistics: Types of Data; Critical Thinking; Design of Experiments and Sampling Design	1
2	Describing, Exploring, and Comparing Data: Frequency Distributions; Visualizing Data; Measures of Center and Variation; Measures of Relative Standing; Exploratory Data Analysis (EDA)	2
3	Probability: Fundamentals and Addition Rule; Multiplication Rule and Conditional Probability; Probabilities Through Simulations (optional)	1 – 2
4	Probability Distributions: Random Variables; Binomial Probability Distribution and Mean and Standard Deviation for BPD	1
5	Normal Probability Distributions: The Standard Normal Distribution; Applications of Normal Distributions; Sampling Distributions and Estimators; The Central Limit Theorem	2
6	Interval Estimates and Sample Sizes: Estimating a Population Proportion; Estimating a Population Mean:s Known; Estimating a Population Mean: s Not Known	2
7	Hypothesis Testing: Basic of Hypothesis Testing; Testing a Claim About a Proportion; Testing a Claim About a Mean: s Known; Testing a Claim About a Mean: s Not Known	2
9	Correlation and Regression: Introduction to Linear Correlation and Regression Concepts	1
10	Multinomial Experiments and Contingency Tables: Multinomial Experiments: The Chi-Square Goodness-of-Fit Test; Contingency Tables: Tests for Independence and Homogeneity	1
11, 12	Introduction to ANOVA; Introduction to Nonparametric Statistics [If Time Permits]	

REMARKS: 1. A minimum of three exams will be given in class in approximately equal intervals.
2. All students must take a Final Exam as scheduled by the Registrar (no take-home exams). The Exam is generally cumulative, with emphasis on the units after Chapter 5.