MATH 1342
Elementary Statistical Methods

The textbooks for 2004-2005 are: (1) *Elementary Statistics: A Step by Step Approach* by Allan G. Bluman (McGraw Hill, 2004, 5th Edition). (2) *Excel Manual* by V. Koehler and R. Goffinet (McGraw Hill, 2004). The following topics from the main text are to be taught:

Ch. 1	**Introduction to Statistics**
Ch. 2	**Graphs in Descriptive Statistics**
2.2	Organizing Data
2.3	Frequency Histograms
2.4	Stem and Leaf Plots
Ch. 3	**Numerical Methods in Descriptive Statistics**
3.2	Measures of Central Tendency
3.3	Measures of Variation
3.4	Measures of Position and the Boxplot
Ch. 4	**Probability and Counting Rules**
4.2	Sample Spaces and Probability
4.3	The Additive Law
4.4	The Multiplicative Law and Conditional Probability
4.5	Counting Rules
Ch. 5	**Discrete Probability Distributions**
5.2	Probability Distributions
5.3	Mean, Variance, Expectation
5.4	The Binomial Distribution
Ch. 6	**The Normal Distribution**
6.2	Properties of the Normal Distribution
6.3	The Standard Normal Distribution
6.4	Applications of the Normal Distribution
6.5	The Central Limit Theorem
6.6	The Normal Approximation to the Binomial Distribution
Ch. 7	**Confidence Intervals**
7.2	Confidence Intervals for the Mean (σ Known or n š 30)
7.3	Confidence Intervals for the Mean (σ Unknown and n – 30)
7.4	Confidence Intervals for Proportions
7.5	Confidence Intervals for Variances and Standard Deviations

Ch. 8	**Hypothesis Testing**
8.2	Steps in Hypothesis Testing - Traditional Method
8.3	z Test for a Mean
8.4	t Test for a Mean
8.5	z Test for a Proportion
8.6	χ^2 Test for a Variance or Standard Deviation
Ch. 9	**Testing the Difference Between Two Means**
9.2	Testing the Difference Between Two Means: Large Samples
9.4	Testing the Difference Between Two Means: Small Independent Samples
9.6	Testing the Difference Between Two Proportions
Ch. 10	**Correlation and Regression**
10.2	Scatter Plots
10.3	Correlation
10.4	Linear Regression
10.5	Coefficient of Determination

Note: **Computer instruction and exercises will be assigned to follow the *Excel Manual*, Chapters 1-9.**

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