

## CUMBERLAND COUNTY COLLEGE

**Course:** MA 205 Statistics I

**Credits:** 3

### **Prerequisites**

MA091 or placement by Accuplacer or SAT score.

### **Description**

An introduction to statistical reasoning covering description of sample data, probability, sampling, special distributions, estimation, confidence intervals, hypothesis testing, correlation and regression.

### **Learning Outcomes**

At the completion of this course, students should be able to:

- Compute measures of descriptive statistics
- Apply basic rules of probability (binomial, conditional, addition, etc.)
- Solve problems involving probability distributions
- Formulate conclusions through inference
- Analyze bivariate data through linear correlation and regression
- Apply basic statistical concepts

### **Related General Education Outcomes**

- Students will translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations.
- Students will construct graphs and charts, interpret them, and draw appropriate conclusions.

### **Topical Outline**

- Introduction to Statistics
- Descriptive Statistics
- Probability
- Discrete Probability Distributions
- Normal Probability Distributions
- Confidence Intervals
- Hypothesis Testing with One Sample
- Correlation and Regression

### **Required Texts and Other Materials**

Elementary Statistics, Picturing the World, 6<sup>th</sup> edition, Larson & Farber, Pearson, 2015

### **Student Assessment**

Assessment may be accomplished through projects, portfolios, online assignments, exams, presentations and/or papers.

### **Academic Integrity**

Plagiarism is cheating. Plagiarism is presenting in written work, in public speaking, and in oral reports the ideas or exact words of someone else without proper documentation. Whether the act of plagiarism is deliberate or accidental [ignorance of the proper rules for handling material is no excuse], plagiarism is, indeed, a “criminal” offense. As such, a plagiarized paper or report automatically receives a grade of **ZERO** and the student may receive a grade of **F** for the semester at the discretion of the instructor.

### **Available Resources**

If you are having difficulty with work in this class, tutoring is available through the Success Center. If you think that you might have a learning disability, contact Project Assist at 856.691.8600, x1282 for information on assistance that can be provided to eligible students.

**(List availability of open labs and/or writing center)**

### **Before Withdrawing From This Course**

If a student experiences adverse circumstances while enrolled in this course and considers withdrawing, s/he should see an advisor (division or advisement center) BEFORE withdrawing from the class. A withdrawal may cause harmful repercussions to completion rate standards and overall GPA which can limit or eliminate future financial aid in addition to causing academic suspension.