

SOPHIA Learning

STAT0050: Foundations of Statistics (2 semester credits)

COURSE DESCRIPTION

The course teaches foundational statistics skills that will enable students to be successful in a college level Statistics course. Students will learn about fundamental concepts in statistics such as central tendency, variation, correlation, probability, and statistical analysis.

Course Effective Dates: April 2016 – Present

Prerequisite(s): Lower-division baccalaureate/associate degree course – no prerequisites

Length of course: This is a self-paced course. Students have 60 days with an additional 30-day extension (if needed) to complete the course.

ACE CREDIT® Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics (3/16).

LEARNING OUTCOMES

Upon completion of the course, the student will be able to:

1. Interpret descriptive statistics
2. Interpret inferential statistics

OUTLINE OF MAJOR CONTENT AREAS

- What is Statistics?
- Experiments
- Nominal, Ordinal, Interval, and Ratio Data
- Classifying Data
- Determining the Center of Data
- Graphing Data
- Normal Distribution
- Skewed Distributions
- Range
- Variation
- Correlation
- Correlation and Causation
- Probability
- Independent and Dependent Events
- Normal Distributions and Probability
- Standard Normal Distribution
- Calculating z-Scores
- Z-Scores and Probability
- Data from Multiple Samples
- Determining Likelihood of a Mean
- Determining Significance Levels
- Type I and Type II Errors
- Confidence Intervals

GRADING

This is a pass/fail course. Students are required to complete all 6 formative and 2 summative assessments with an overall course average of 70% or better.