



## MTH 119: Fundamental Statistics

This course provides a survey of statistical methods, with examples taken from sociology, psychology, education, and related fields. A minimum background in mathematics is assumed. Topics include descriptive statistics, measure of central tendency and variability, probability, binomial and normal distributions, estimation, correlation, regression sampling distributions, and hypothesis testing. Prerequisite: Introductory Algebra Competency. Three lecture hours per week. Gen. Ed. Competencies Met: Quantitative and Symbolic Reasoning. 3 credits Fall, Spring, Summer

### Course Student Learning Outcomes

1. Create and interpret distributions of data using various types of charts and graphs.
2. Determine the appropriate measures of center and dispersion for different types of distributions and use them to describe the properties of the distributions, and

use the Empirical Rule.

1. Perform least squares regression and use the results to describe and make inferences about data.
2. Determine and use simple probability to construct a discrete probability distribution and determine the expected value and use to solve applications.
3. Solve problems using the normal distribution and sampling distribution of the mean and proportion (with sigma known and unknown) including finding probabilities

and constructing confidence intervals.

1. Set up and perform hypothesis tests.

**Credits:** 3

**Co-Requisites:**

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**Program:** Mathematics