MATH 250 : Elementary Statistics

Introduces a wide range of issues, including distributions, measures of central tendency, dispersion, and shape, the normal distribution; confidence intervals; effects of departure from assumption; method of least squares, regression, experiments to compare means, standard errors, correlation, assumptions and limitations; and basic ideas of experimental design. You can use this course to satisfy the statistics requirement for various undergraduate majors.

Credits 3

Prerequisites

Appropriate scores in ACT/SAT. Placement Test.

Course Outcomes

After successfully completing the course, the learner will be able to:

- Explain the use of data collection and statistics as tools to reach reasonable conclusions.
- Recognize, examine and interpret the basic principles of describing and presenting data.
- Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
- Explain the role of probability in statistics.
- Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
- Describe and compute confidence intervals.
- Solve linear regression and correlation problems.
- Perform hypothesis testing using statistical methods.the use of data collection and statistics as tools to reach reasonable conclusions.

Competency

Scientific Reasoning