



Curriculum Description for St. Francis Baccalaureate

Introduction to Statistics (Mathematics 215)

Prerequisites:

Algebra One (high school first-year algebra, both semesters), or Elementary Algebra at the college level.

Objectives:

1. know and be able to use the basic concepts of descriptive statistics in terms of measures of centring (mean, median, mode and mid-range) and measures of scattering (main standard deviations and variances, for populations and for samples with both grouped and ungrouped data), and understand the relationship between standard deviations and the normal distribution, i.e. the bell-shaped curve;
2. know and be able to use the basic concepts of inferential statistics involved in: confidence interval estimating; determining needed sample sizes; significance testing (in both the one and the two population cases) of means, variances, and proportions with independent samples; significance testing of means with dependent samples; determining linear correlations and regressions; calculating one, two, and three-factor ANOVAs (Analysis of Variance); and calculating Chi-Square “Goodness of Fit” tests for non-parametric cases.

Course Requirements:

Students will be evaluated based on Quizzes, Tests and Final Exam.