

Math 170: Elementary Statistics, Tuesday 11-12:15pm, Winter 2016
3 Credit hour, Hybrid Section
Instructor: Dr. Tanweer Shapla, Email: tshapla@emich.edu

Why study Statistics?

Statistical techniques are used in the fields of Agriculture, Education, Business, Economics, Engineering, Social Sciences, Marketing, Clinical Trials, Public Health & Medicine, Ecology, Law, Government Surveys, or any field of science and technology.

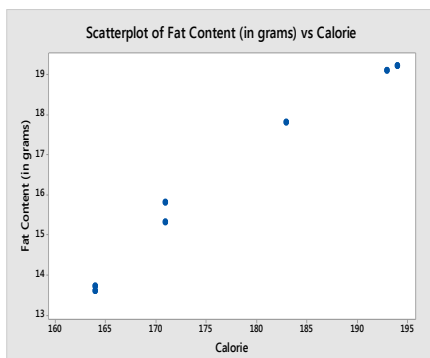
Course Objectives

After completion, students are able to

- ❖ gain an overview of how statisticians gather, summarize, and draw conclusions from data
- ❖ develop a solid concept of statistical analysis and apply statistical methods to solve real life problems
- ❖ build a foundation for understanding and evaluating statistical analysis in different fields
- ❖ use software to solve real life data and present results using graphs and charts

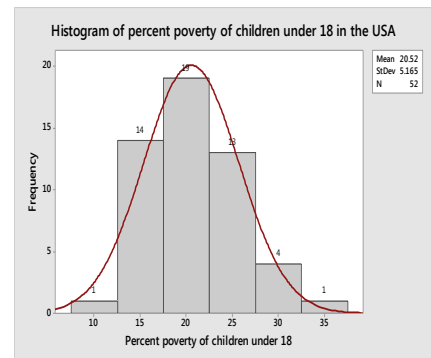
Course Content

Statistics basics, variables and data, graphs and charts, measures of center, measures of variation, normally distributed variables, application of normal distribution, scatterplots, correlation, linear regression, Binomial Distribution, sampling distributions, mean and standard deviation of a sample mean, confidence interval estimation, hypothesis testing, significance level and power, hypotheses tests for one and two population means, population proportions.



Statistical Analysis:

We use Software to perform the statistical analysis of real life data and write reports to present the findings using graphs and numerical measures.



This course fulfills the General Education requirement.