Course No. | Course Title       | Theory | Practice | Credit | Prerequisite(s) |
-----------|--------------------|--------|----------|--------|----------------|
STAT 110   | General Statistics | 3      | -        | 3      | -              |

Objectives

- To give the students an understanding of statistics.
- To learn some commonly used statistical techniques.
- To apply these techniques in describing and analyzing data.
- To use statistics to solve different kind of problems.
- To recognize sound/good statistical studies.
- To gain an appreciation for analytical skills.

Course Description

- What is Statistics?
- Collecting data, graphical presentation and tabulation.
- Measures of central tendency: mean, median and mode.
- Measures of dispersion: range, and standard deviation.
- Relative Dispersion and Skewness.
- Elementary probability: random experiment, sample space, event, and computation of probability. Rules of addition and multiplication, conditional probability and independence.
- Random variables, probability distributions, variance and expected value - Some probability distributions (Binomial, Poisson, and Normal).
- Sampling and sampling distribution: Sampling distribution of Sample Mean (in case of large samples), central limit theorem and sampling distribution of proportion.
- Estimation of population mean and proportion.
- Tests of statistical hypotheses: testing of mean, differences between two means, proportion, differences between two proportions in large samples.
- Simple linear regression and Correlation: Pearson’s correlation coefficient and Spearman's rank correlation coefficient.

Textbook:


Subsidiary: