

Course Title	Foundation Statistics			Course Code	BST 12092		
Year	1	Semester	2	Credits	02	Theory (hr)	15
						Practical (hr)	30
						Independent Learning (hr)	

**Aim of the Course:**

To provide knowledge on basic concepts, theories and applications of statistics

**Intended Learning Outcomes:**

*After completion of this course, the learner should be able to:*

- Interpret the data graphically and numerically.
- Describe the concept of probability and probability distributions.
- Calculate point and interval estimates.
- Model a linear relationship between set of variables.
- Perform testing of hypothesis.

**Course Capsule:**

Theory
Descriptive Statistics: Numerical, graphical and tabulation methods; Concepts of probability distributions with special reference to normal distribution; Introduction to Inferential Statistics: Hypothesis testing, null and alternative hypothesis, errors and power of the test, one tail and two tail tests, z-test, t-tests: one and two sample t-tests; Simple Linear Regression and Correlation

Practical
Introduction of Statistical packages; Calculation of descriptive statistics using statistical packages; Sample data analysis and presentation using different descriptive analytical techniques; Data analysis and interpretation using one and two samples t-tests; Model building using Linear Regression, Measuring the strength of relationship between datasets - Correlation

**Assessment:**

Continuous assessment: 30%  
 End semester assessment: 70%