Type/Status   : Core

Course Code   **: SOST 42434**

Title   **: Statistical Methods**

Learning Outcomes   : On completion of this course unit students should be able to analyze categorical data, obtain the knowledge on statistical quality control and control charts.

Course Content:

- Analysis of categorical data: application of Chi-square test, analysis of contingent tables, fitting data to theoretical distribution, application for log linear models and logistic linear models.
- Statistical quality control: product control and process control, control charts for variables: X chart, R chart, control charts for attributes: T chart, np chart, C chart.
- Product control: acceptance sampling method, one stage acceptance sampling.

Methods of teaching and learning: lectures, tutorial and assignments.

Assessment scheme:

Mid semester test/assignment	30%
Semester end examination	70%

Recommended reading:

Grant E.L and Leavenworth R.S. (2008). *Statistical Quality Control.* 7th edition. McGraw-Hill

Montgomery D.C. (1996), *Introduction to Quality Control,* Jhon Wiley and Sons

Arora P.N., Arora Sumeet and Arora S. (2007). *Comprehensive Statistical Methods,* S. Chand, India.