DEPARTMENT OF STATISTICS			*Certificate Course*				
Course Type	**Course Code**	**Course Code Course Title**	**Credits**	**Total Contact Hours**	**CIA**	**Ext**	**Total**
Value Added Course		Statistical Data Analysis Using Excel	2	30			

Learning Objectives:

- To introduce statistical Data analysis through Excel.
- To develop knowledge and understand theory in practical application of statistical techniques.

Learning out comes:

- Demonstrate their understanding of descriptive statistics by practical application and data visualization.
- Use Excel to conduct statistical analyses.

Unit – I

Getting started with excel – Spread Sheet – Work books and Worksheets – Working cells Printing and Saving - Excel Add-Ins – Working with data – Data entry - Formats – Formulas and Functions.

Unit – II

Introducing excel chats – Introducing scatter plot – Editing a chart – Identifying data points – Creating Bubble plots – Breaking a scatter plot into categories – plotting several variables – Bar charts – Pie charts – line charts.

Unit – III

Describing your data –Variables and descriptive Statistics – Frequency tables – Working with histograms – Distribution statistics – Measure of central tendency – mean – median and mode – measure of variability – percentiles and Quartiles – Measure of shape – outliers – Boxplots.

Unit – IV

Statistical Inference – t test – test for equality of variance - ANOVA – Non-parametric test – Tables - Pivot tables – Two way table – Person chi-square statistics.

Unit – V

Correlation analysis – Creating correlation matrix – Scatter plot matrix – Simple linear regression – multiple regression analysis.

Books for Study

Berk, K.N and Carey, P. Data Analysis with Excel, 3rd edition, Brooks-Cole, Boston, USA (2010).

Books for references

Guerrero, H. Excel Data analysis Modeling and Simulation, Springer, London (2010).