**PROGRAM OUTLINE: SESSION – 14TH – 18TH September, 2015**

| Day | Session I (8:30am-11:00am) | Session II (11:30am-1:30pm) | Session III (2:30pm-4pm) |
|---|---|---|---|
| Day 1 | Registration and Orientation<br><br>Introductory Statistics | Sampling: reasons for sampling, sampling techniques, selection of sample size, sampling and non-sampling errors | Surveys: factors to consider in undertaking a survey, modes of data collection, questionnaire design. |
| Day 2 | Data Management: capturing of data into software, missing value imputation, data transformation | Data Management: test for consistency of responses from data collection to data capture, coding | Lab session |
| Day 3 | Exploratory Data Analysis: data reduction; frequency tables and graphs, descriptive statistics; measures of center and dispersion. | Inferential Statistics: comparing means; one sample and two sample mean tests, ANOVA, chi-square and goodness of fit tests | Lab session |
| Day 4 | Regression Analysis: correlations and relationships simple Linear Regression, multiple regression, residual diagnostics | Time Series Analysis: time series plots, decomposition of time series, trend Analysis. | Lab session |
| Day 5 | Case Study: Participants have the opportunity to work on real life data by putting everything together | Case Study: Group presentations and course evaluation | Closing and presentation of certificates of competence |