SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (QPM)
Semester: II
Syllabus with effect from: December - 2014

Paper Code: QP - 205	Total Credit:
Title Of Paper: Statistical Methods Through SPSS	

Unit	Description in Detail	Weightage (%)
I	Introduction: Samples and the Population, Level of Measurement A Special Case: Rating Scales ,Independent and Dependent Variables, Data Access. Data Checking :Viewing a Few Cases ,Minimum, Maximum and Number of Valid Cases ,Identifying Inconsistent Responses ,When Errors are Discovered,SPSS Missing Values Option Describing Categorical Data :Frequency Tables and Bar Charts, Standardizing the Chart Axis, Pie Charts Comparing Groups(Categorical Data)A Basic Two-Way Table ,Chi-Square Test of Independence ,Requesting the Chi-Square Test ,Different Tests, Different Results? Association Measures Available within Crosstabs ,Graphing Cross Tabulation Results, Three-Way Tables ,Extensions	[10]
II	Exploratory Data Analysis: Interval Scale Data: Frequency Tables and Histograms, Exploratory Data Analysis, Options with Missing Values, Measures of Central Tendency ,Variability Measures, Confidence Band for Mean ,Shape of the Distribution ,Stem & Leaf Plot ,Box & Whisker Plot, Saving an Updated Copy of the Data Mean Differences Between Groups I: (Simple Case)Logic of Testing for Mean Differences, Sample Size, Exploring the Different Groups, T- Test, Displaying Mean Differences, Paired T Test , Normal Probability Plots	[10]
III	Mean Differences Between Groups II:(One Factor ANOVA)Logic of Testing for Mean Differences ,Factors ,Exploring the Data, Running One-Factor ANOVA, One-Factor ANOVA Results, Post Hoc Testing of Means ,Graphing the Results, Mean Differences Between Groups III: (Two Factor ANOVA): Logic of Testing and Assumptions, How Many Factors? Interactions, Exploring the Data, Two-Factor ANOVA, The ANOVA Table, Observed Means, Presenting the Results	[10]
IV	Bivariate Plots and Statistics: Reading the Data, Exploring the Data, Scatterplots, Correlations Introduction to Regression : Introduction and Basic Concepts, The Regression Equation and Fit Measure, Residuals and Outliers, Assumptions, Simple Regression, Multiple Regression ,Residual Plots ,Multiple Regression Results, Residual and Outlier Results ,Summary of Regression Results ,Stepwise Regression, Stepwise Regression Results, Stepwise Summary.	[12]

Basic Text & Reference Books:-

- Eelko Huizingh (2007) Applied Statistics with SPSS, SAGE
- Robert H. Carver and Jane Gradwohl Nash(2011) Doing Data Analysis with SPSS, Cengage Learning.
- Colin D. Gray, Paul R. Kinnear(2011) IBM SPSS Statistics 19 Made Simple, Taylor & Fransis.

- Andy Field(2000).Discovering Statistics Using SPSS for Windows: Advanced Techniques for Beginners, SAGE
- John Hedderson and Melinda Fisher(1993). SPSS Made Simple, Wadsworth Publishing Company.
- Elliot T. Berkman and Steven P. Reise (2011). A Conceptual Guide to Statistics Using SPSS, SAGE
- Richard Burns and Robert P Burns (2008). Business Research Methods and Statistics Using SPSS, SAGE