

DEPARTMENT OF HUMAN RESOURCE DEVELOPMENT VEER NARMAD SOUTH GUJARAT UNIVERSITY

CERTIFICATE COURSE IN SPSS

SPSS is an important tool for any statistical analysis. SPSS stands for Statistical Package for the Social Sciences. SPSS software was designed to perform statistical analysis on quantitative data. In plain English, SPSS software is used for complex calculations to analyze numerical data. SPSS software is used in nonprofit agencies, educational institutions and even in business to analyze numerical data. It performs several statistical and econometric analyses. It has wide applications in the field of Social Sciences, Life Sciences, finance, Marketing, Education and other fields where statistical analysis is required. The use of SPSS is very much essential for research work. Academic institutions, Research Institutes, NGO and other such organization are also required to make use of this statistical package.

The Department of Human Resource Development is proposing to introduce Certificate Course in SPSS of 3 months duration.

Who can apply?

Candidates who have passed bachelor degree in any field with minimum of 45% of marks will be eligible , for the admission to this certification course.

The departmental committee will admit the students on the basis of merit (i.e. marks scored in graduation)

The students of the Department, postgraduate students and faculty will be given preference in admission. Reservation as per the University rules will be applicable.

Syllabus

Introduction

Introduction to different data types, Scale of measurements, classification techniques

Basics of SPSS, Data entry in SPSS, missing values, multi response

Data transformation through SPSS: selection of cases, recoding of variables, identification of duplicate cases, compute variable, visual binning, merge files

Exploratory data analysis

Frequency tables and different types of charts, measures of central tendency, measures of dispersion, distribution of data set

Parametric tests

Hypothesis, logic behind hypothesis testing, procedure of hypothesis testing, p-value

Logic and assumptions for parametric test, normal probability plot, one sample t-test, two independent sample t-test, paired t-test, one way ANOVA, two way ANOVA, post hoc test

Non parametric tests

Logic and assumptions for non parametric tests, Wilcoxon test, Mann-Whitney U test, Kruskal Wallis II test, Run test, Chi-square test

Correlation and regression

Simple correlation, partial correlation, simple linear regression, assumptions of regression analysis, Residual analysis, multiple linear regression, curve linear regression, logistic regression

Data reduction techniques

Factor analysis, discriminant analysis, Cluster analysis

Time series analysis

Stationary time series, Auto correlation function, partial autocorrelation, model fitting through expert modeler

Course duration: 3 months

Time: 4:30 pm- 6:30 pm from Monday to Wednesday (Department will have discretion to change timing)