

# **VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT.**

## **Diploma in Research Methodology**

### **Syllabus (07-08)**

#### **101 RESEARCH PROCESS AND THEORETICAL APPROACHES**

Nature And Significance of Research Problems - The Literature Review - Data Analyses Strategies - Research Design and Methods

**Positivism and Realism** - Evolution of scientific inquiry, Induction and Deduction Debate; Verification versus falsification; Paradigms - Nature of Scientific Revolution.

**Contemporary Theoretical Trends** - Structuration Theory; Feminist Theories, Post-colonial Thinkers; Materialist Feminism and the Politics of Discourse.

#### **102 INTRODUCTORY STATISTICAL METHODS**

Statistical Methods is a course in applied statistics that will investigate concepts and methods in descriptive and inferential statistics. The course is designed to provide students with the statistical background for doctoral level research. The application of statistics will be emphasized. Areas of study will include probability, F-distribution, confidence intervals, hypotheses testing, and correlation.

#### **103 SURVEY RESEARCH**

The Survey Research course is designed to provide doctoral students with an overview of survey research methods. Topics in the course will include survey design, implementation, sampling, data collection, follow-up, analyses, and ethics.

Students will design a pilot survey in preparation for their dissertation research.

#### **104 USE OF COMPUTER IN RESEARCH**

Introduction to Computer Fundamentals, hardware, Software. Working with MS-Dos, LAN (Novell Netware) environment, Windows Operating System.

**DBMS:** Data Base Management Systems; Data Base Operations like Creation, Updation, Indexing/Sorting and Searching of Data, Report and Label Generations, Programme Writing. MS-Office: MS Word, Excel, Powerpoint.

**Spreadsheet:** Introduction to Spread sheet applications, Data Entries, Statistical, Logical and Financial Functions, Graphical Applications and Data Analysis.

#### **201 ADVANCED STATISTICAL METHODS**

This course is designed to build on material reviewed in the Statistical Methods course and is developed to acquaint students with advanced statistical procedures. Areas that will be covered will include factorial analysis of variance (ANOVA), univariate ANOVA post hoc tests, analysis of covariance (ANCOVA), repeated measures analysis, multiple regression, and power analysis. In addition, the course will emphasize the application of these statistical procedures to real world challenges that students may encounter in their research or work setting.

**202 QUALITATIVE RESEARCH**

The purpose of the Qualitative Research course is to introduce students to the principles of research methods. The course content includes in-depth and formal interviewing techniques, principles of field observation, content analysis, literature reviews, historical analysis focus groups, questionnaire design, and philosophical inquiry into qualitative research perspectives. Major emphasis in the course is placed upon learning how to integrate qualitative methods as appropriate.

**203 DATA ANALYSIS WITH STATISTICAL PACKAGES**

**Analysis Design:** Quantitative data analysis. Research and use of statistical packages for quantitative research data analysis. Introduction to statistical packages in Social Sciences Research. Data preparation using various packages/editors, Data Definition, Transformation and System files generation.

**Statistical Analysis:** Frequency, Cross tabulation, Descriptive Statistics, T-test, Means, Correlations, Analysis of Variance, Regression, Non-parametric test, Tables and Reports, Factor, Cluster and Discriminant Analysis.

**204 RESEARCH PROJECT**

The research project offers the student full opportunity to utilize and demonstrate his/her abilities and skills in social science research. As part of the course requirements, students are required to undertake a field/empirical research project. They are required to present a brief

research proposal in the class before commencing work on the same. Each student will be supervised by the faculty member of the Department of Research Methodology and other faculty members of the University.