# MANAGED BY JIVAN JYOT TRUST J.Z SHAH ARTS & H. P. DESAI COMMERCE COLLEGE, AMROLI-SURAT.



Re-Accredited B++ (CGPA 2.94) BY NAAC (3rd Cycle)

Affiliated To Veer Narmad South Gujarat University, Surat

# Certificate Course on "RESEARCH METHODOLOGY"

Total Hours: 30 Hrs.

2 Oosw Con AMPOLI 394157 (SURAT)

PRINCIPAL
Dr. K. N. CHAVDA
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# Values

Integrity, transparency, accountability and credibility are the values we cherish and adhere to in all aspects of dealings with our Students.

# Mission

To provide executive coaching and soft skills training in enhancing professionalism which act as a stepping stone and paves the path for a bright future.



## Annexure -1 Course Syllabus Proposal of the Certificate Course Certificate Course on Research Methodology (CCRM)

| Objective of the Course: | The course is aimed at providing the knowledge of conducting research projects and building themselves in the field of Research for the students who have completed their graduation in faculty of commerce & Arts and who are presently enrolled in Masters of Arts and Masters of Commerce Faculty. |
|--------------------------|---|
| Pre-requisite:           | Those who have had no previous exposure to Research and Research Methodology.   |
| Expected                 | Discuss different methodologies and techniques used in research work.   |
| Outcomes of              | Demonstrate the ability to choose methods appropriate to research aims  |
| the Course:              | and objectives.   |
|                          | Develop skills in qualitative and quantitative data analysis and  |
|                          | presentation.   |
|                          | Develop advanced critical thinking skills.  |
|                          | Get the basic skill for the conduct of research.  |
|                          | Will get the Analytical Skill to conduct the research.  |

**Details Proposal Course Schedule** 

| Unit<br>No. | Module to be Covered  | 30<br>Hours |
|-------------|---|-------------|
| Unit 1      | <ul> <li>Introduction to Research Methodology:</li> <li>Meaning, Objective, Motivation of Research</li> <li>Type of Research, Significance of Research</li> <li>Research Methods versus Methodology</li> <li>Research Process, Criteria of Good Research</li> <li>Defining the Research Problem</li> </ul>  | 4<br>Hours  |
| Unit 2      | <ul> <li>Experimental Design:         <ul> <li>Basic Principles – Randomization, Replication, Local Control</li> <li>Informal Experimental Design – Before and After Without Control, after with control, before and after with control</li> <li>Formal Experimental Design – Completely Randomized, Randomized Block, Latin Square.</li> <li>Sampling Design – Sampling Procedure, Characteristic of good sample design</li> <li>Different type of sampling design – Probability and Nonprobability</li> </ul> </li> </ul> | 4<br>Hours  |
| Unit-       | <ul> <li>Data Collection Techniques</li> <li>Primary and Secondary Data</li> <li>Direct and Indirect Investigation and Techniques</li> </ul>  | 4<br>Hours  |



|            | <ul> <li>Essential of Good Questionnaire</li> <li>Different Between Survey and Experiments</li> </ul>   |            |
|------------|---|------------|
| Unit-<br>4 | <ul> <li>Sampling Fundamentals</li> <li>Need of Sampling, Terms in Sampling – Population, Sampling Frame, Sampling Design, Statistics and Parameter, Sampling Error, Precision</li> <li>Confidence &amp; Significance Level – Sampling Distribution, Standard Error, Estimation for Population Mean and Proportion</li> <li>Ethical Issues in Research, Writing and presenting Research Report</li> <li>Role of Computer in Research</li> </ul>   | 4<br>Hours |
| Unit-<br>5 | <ul> <li>Testing Hypothesis – Large Sample Test and Small Sample Test</li> <li>Definition of Hypothesis, Concept of Hypothesis – Null and Alternative Hypothesis</li> <li>Level of Significance, Type I &amp; II error, One Tailed and Two Tailed Test</li> <li>Power of test, Testing of Mean, testing of difference between two mean, testing of proportion &amp; difference between two proportion.</li> <li>Degree of Freedom</li> <li>Significance testing based upon T Statistic and F Statistic-Testing of Mean, testing of difference between two mean, testing equity of variance</li> </ul> | 4<br>Hours |
| Unit-<br>6 | <ul> <li>Chi-square test and Analysis of Variance</li> <li>Definition of Chi-square, Chi-square test and goodness of fit and as a test of independence</li> <li>Correlation and its application</li> <li>Analysis of Variance (ANOVA) – Concept, One Way ANOVA, ANOVA test in Latin square design</li> <li>Idea of Non Parametric Test, Sign Test, McNemer change test, Wilcoxon matched pair test, One sample run test</li> </ul>  | 4<br>Hours |
| Unit-7     | Practical/Project/Field Work  | 6<br>Hours |

### **References:**

- 1. Research Methodology Edition II, C R Kothari
- 2. Introducing Research Methodology: A Beginner's Guide to Doing a Research Project. Uwe Flick
- 3. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, J. David Creswell, John W. Creswell
- 4. Essentials of research design and methodology, Geoffrey R. Marczyk
- 5. Fundamental of Research Methodology and Statistics, Y.K. Singh



## **Nature of Teaching and Evaluation Methods:**

**Test Material** 

Discussion forum

Assessment

Activity

Assignment

Quizzes

Presentation / Viva-voice



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