

<b>Symbiosis College of Arts and Commerce</b> (An Autonomous College Affiliated to University of Pune)													
Subject code	Semester	I	II	III	IV	V	VI	M.A.	I	II	III	IV	
Title of Subject	<ol style="list-style-type: none"> <li>1. To introduce the student with the concepts and methods of research.</li> <li>2. To orient the student to make an informed choice from the large number of alternative methods and experimental designs available.</li> <li>3. To enable the student to present a good research proposal.</li> <li>4. To familiarize the student with the nature of research tools and writing skills</li> <li>5. To empower the student with the knowledge and skills they need to undertake research projects, to present a conference papers and to write quality articles</li> </ol>												
Research Methodology													
Objectives													
<b>Detailed syllabus</b>													
Unit	Contents of the syllabus											Number of Hours	
1	<b>Introduction to research methodology</b> 1.1 Objective and motivation of research 1.2 Hypothesis 1.3 Sampling design											08	
2	<b>Descriptive Statistics</b> 2.1 Methods of data collection 2.2 Measures of central tendency , dispersion , skewness 2.3 Graphical presentation											08	
3	<b>Correlation and regression</b> 3.1 Karl Perason’s correlation, Rank correlation 3.2 Regression – linear, nonlinear 3.3 Multiple correlation and regression											10	
4	<b>Application and selection of Appropriate parametric test</b> 4.1 Large sample tests 4.2 Small sample test 4.3 Chi square test 4.4 Application of ANOVA											16	
5	<b>Non parametric tests</b> 5.1 Sign Test 5.2 Signed rank test 5.3 Wilcoxon rank sum test or Wilcoxon two sample test 5.4 Kruskal wallis test 5.5 Run test											08	
6	<b>Theory of Attributes</b> 6.1 Attribute concept 6.2 Classification and frequency distribution 6.3 Consistency of the data upto 2 attributes 6.4 Independence and association of two attributes 6.5 Yule’s coefficient of association (Q)											10	

**Suggested Readings/References ( For research methodology)**

- Wilkinson and Bhandarkar : Methodology and Techniques of Social Research- Pauline, Young – Scientific Social Surveys and Research.
- Goode and Halt – Methods in Social Surveys and Research.

- Sharma Prasad and Satyanatrayana (ed) Research Methods in Social Sciences.
- Krishnaswamy, O.R. and Ranganathan, M. (2005) Methodology of Research in Social Research
- Moser and Kolton – Survey Methods in Social Investigations.
- Gupta S.C. and V.K. Kapoor (1993) Fundamentals of Applied Statistics, S.Chand and Sons
- Sadhu and Singh – Research Methodology in Social Sciences.
- Kothari C. R., Research Methodology : Methods and Techniques (Second Revised Edition), New Age International Publishers.
- Thanulingom, N. (2000), “Research Methodology” Himalaya Publishing House
- Devendra Thakur – Research Methodology in Social Sciences.
- Basotia G.R. Sharma K.K. – Research Methodology.

#### **Additional Readings:**

- Acoff. Russel L.(1961) The Design of Social Research, Chicago, Uni. Of Chicago,
- Allen, T. Harrell (1978) New Methods in Social Science Research. New York; Praeges Publishes.
- Berdie, Douglas R. & Andesson, John F. (1974) Questionnaires, Design and use Metuchen N.J. the sear escrow press Inc.
- Ghosh B.N. (1982) Scientific Methods & Social Research New Delhi, Sterling Publishers Pvt. Ltd.
- Goode, William J. & Hatt, Paul K. (1952) Methods in Social Research, New York MacGrow Hill.
- Nachmias David & Nachmias Chava, (1981), Research Methods in the Social Sciences, New York, St.
- Lundberg, George A. : Social Research, Long mans, Green and Co., New Delhi

#### **Suggested Reference Books ( For Statistics)**

1. Agarwal Y.P: Statistical Methods: Concepts, Applications and Computations, New Delhi: Sterling Publishers, 1988.
2. Blalock, Hubert M: Social Statistics, London: McGraw Hill, 1981.
3. Croxton Frederiel, Dudley J. Gowden and Sidny Klein: Applied General Statistics, New Delhi: Prentice Hall, 1975
4. Edward A.L: Statistical Methods for the Behavioural Sciences, New York: Rinchart & Co, 1954.
5. Edward W Frees (2004), Longitudinal and Panel Data: Analysis and Applications in Social Sciences, Cambridge University Press.
6. Garrett E: Statistical Methods for Research Worker, New York, Hafner Publishing & Co, 1950.
7. Grewal P.S: Methods of Statistical Analysis, New Delhi: Sterling Publishers, 1990.
8. Griffiths, D., W., Douglas and K. Laurence Weldon (1998): Understanding Data: Principles & Practice of Statistics, John Wiley and Sons
9. Gupta S.P: Statistical Methods, New Delhi, Chand & Co, 2005.
10. Gupta C.B: An Introduction to Statistical Methods, New Delhi, Vikas Publishers, 2005.
11. Gupta. S.C: Fundamentals of Statistics, Bombay, Himalaya Publishing House, 2000.
12. Mansfield, Edwin: Statistical for Business and Economics, New York : Norton and Co, 1980.
13. Philip Hans Franses (1998), Time Series Models for Business and Economic Forecasting, Cambridge University Press
14. Walker H.M & Lev J: Statistical Inference, New York: Holt, 1980.