



#### **CRITERION 3 - RESEARCH, INNOVATIONS AND EXTENSION**

- 3.4.1 The Institution has a stated Code of Ethics for research, the implementation of which is ensured by the following:
  - 1. Research methodology with course on research ethics
  - 2. Ethics committee
  - 3. Plagiarism check
  - 4. Committe on Publication guidelines

To reduce enormous use of paper and printing the ensure data, sign and a seal by the Competent Authority for all the papers, we have used the Class-3 Digital Signatures where a Registration Authority i.e. Dr. Mahipal Singh, Registrar of our University authenticate the documents and responses claimed in this pdf file.

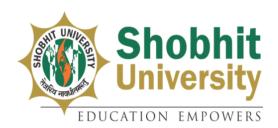


## SHOBHIT UNIVERSITY, Gangoh









Babu Vijendra Marg, Adarsh Institutional Area Gangoh, Distt. Saharanpur (U.P.) 247341, India

Tel: +91 7830810052

E-mail: registrargangoh@shobhituniversity.ac.in

U.: www.sug.ac.in

### **Course Content of Research Ethics**



Babu Vijendra Marg, Adarsh Institutional Area Gangoh, Distt, Saharanpur (U.P.) 247341, India Tel: +91 7830810952 E-mail: registrargangoh@shobhituniversity.ac.in U: www.uga.e.in

# PH.D. COURSEWORK SYLLABUS RESEARCH METHODOLOGY COURSE CODE-RM-901

Objective: This paper highlights the various postulates of research problems, research design, writing a thesis and modern statistical methods. This helps to carry out research problem individually in a perfect scientific method.

Unit-I: Meaning of Research - Function of Research Meaning of Research - Function of Research - Characteristics of Research - Steps involved in Research - Research in Pure and Applied Sciences - Inter Disciplinary Research.

Factors which hinder Research – Significance of Research - Research and scientific methods – Research Process– Criteria of good Research – Problems encountered by Researchers – Literature review.

Unit - II: Identification of Research Problem Selecting the Research problem – Necessity of defining the problem – Goals and Criteria for identifying problems for research. Perception of Research problem – Techniques involved in defining the problem – Source of problems – Personal consideration.

Methods of investigation-sampling techniques and theories, editing, classification and tabulation of data, and frequency distribution of data.

Unit- III: Research Design Formulation of Research design – Need for Research design – Features of a good design – Important concepts related to Research design. Different research designs – Basic principles of experimental designs – Computer and internet in designs.

Unit-IV: Interpretation and Report Writing Meaning and Technique of interpretation – Precautions in interpretation – Significance of report writing – Different steps in writing a report – Layout of a Research report.





Babu Vijendra Marg. Adarsh Institutional Area Gangoh. Distr. Saharanpur (U.P.) 247341, India Tel: -91 7830810052 E-mail: registrargangoh@shobhituniversity.ac.in U.: www.sug.ac.in

Types of report – Mechanics of writing a research report – Precautions for writing a research report – Conclusion.

Unit -V: Statistical Techniques and Tools Introduction of statistics – Functions – Limitations – Measures of central tendency - Arithmetic mean – Median – Mode – Standard deviation – Coefficient of variation (Discrete serious and continuous serious) – Correlation – Regression-Multiple Regression. Sampling distribution – Standard error – Concept of point and interval estimation – Level of significance – Degree of freedom – Analysis of variance – One way and two way classified data – 'F'-test.

#### Text Books and References:

- A Hand Book of Methodology of Research, Rajammall, P. Devadoss and K. Kulandaivel, RMM Vidyalaya press, 1976.
- Research Methodology Methods & Techniques, C.R. Kothari New Age international Publishers, Reprint 2008.
- 3. Thesis and Assignment Writing, J. Anderson, Wiley Eastern Ltd., 1997.
- Research Methodology, Mukul Gupta, Deepa Gupta PHI Learning Private Ltd., New Delhi. 2011.
- Fundamentals of Mathematical statistics, S.C. Gupta and V.K. Kapoor, Sultan Chand & Sons, New Delhi, 1999.
- Statistical Methods, G.W. Snedecor and W.G. Cochrans, Lowa state University Press, 1967

