

## **Syllabus of Certificate Course in Research Methodology**

1. Introduction to Research Methodology.
2. Cross sectional surveys &
3. Case control studies.
4. Cohort studies.
5. Experimental studies - Hospital & Community based - Clinical trials.
6. Sampling methods.
7. Data collection.
8. Measures of central tendency & variability.
9. Presentation of data (Tabular presentation)
10. Presentation of data - Graphical.
11. Presentation of data - Graphical.
12. Data Types, Distributions, Statistical Basis of epidemiological studies.
13. Parametric Tests of significance.
14. Parametric Tests of Significance Non parametric Tests of significance.
15. Confidence interval.
16. Statistical power.
17. Sample size determination.
18. Screening of Disease Specificity, sensitivity +ve & -ve predictive value.
19. Metaanalysis.
20. Statistical fallacious.
21. Communication skills.
22. Ethical considerations.
23. Development of a new drug.
24. Systematic Review of literature & Internet Search,
25. Report /Article writing.
26. Qualitative Research Methodology.
27. Bias.
28. Confounding.
29. Discussions on the study protocol.

30. Discussions on results taking examples of published papers.