



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

PhD CET Syllabus Paper II - Subject Specific Test Biostatistics

1. **Demography:** Sources of demographic data, measures, Life Table, Measures of Fertility Reproduction, Measures of Mortality, Population Estimates and Projection.
2. **Sampling Techniques:** Probability and non-probability sampling techniques, Simple Random sampling, Stratified, Systematic sampling, cluster & Multistage sampling.
3. **Epidemiology:** Basics, Measures of morbidity, relative risk, odds ratio, Surveillance & Screening. Prevalence and incidence rate, association between prevalence and incidence, Assessing the validity and reliability of diagnostic and screening test, Estimating potential for prevention.
4. **Health Economics:** Basic concepts in health economics, Health output and input indicators, cost benefit analysis.
5. **Survival Analysis:** Survival function, probability density function, hazard function; relationship between the three types of function; survival curve, Survival Models.
6. **Design of experiments:** Completely Randomised designs, Randomised complete block designs, Factorial designs, Latin square designs and repeated measures design.
7. **Statistical Methods:** Data, Representation of data, Tabulation & Graphical representation. Descriptive statistics, Test of significance, Parametric and non-parametric test, correlation, Regression analysis, Multivariate analysis.