

## Annexure-VII

### Structure details of the syllabus to be covered in 300 hours by the Ph.D. Research Scholars

Sl. No.	Particulars of the topic	No. of hours
01.	<b>Bio-Statistics:</b> Introduction to Bio-statistics, Types of variables and types of Data measurements scales, Data Collection Methods, Presentation of Data – Tabular/Graphical Form, Sampling Designs, Descriptive Statistics- Measures of Central Tendency & Measures of Dispersion, Correlation Analysis, Regression Analysis, Probability Theory-Binomial Distribution, Poisson Distribution and Normal Distribution, Concept of Testing of Hypothesis, Test of Significance- Parametric Tests- 2 test, t test, ANOVA and Non Parametric Tests- Chi- Square Test, Wilcoxon Rank test, Kruskal - wallis Test, Sample Size Calculation for different study designs, etc	50
02.	<b>Health Insurance:</b> Types of Health Insurance , Scope and Limitation , Utility, etc	10
03.	<b>Historical Perspectives:</b> Historical narration about conduct of experiments / research on human subjects since Biblical time, on vulnerable population, How are last century ethical issues were tackled from time to time from early last century. Ethical code, Nuremberg code, Helsinki declaration, Belmont principles in conduct of research in human subjects to protect respect of human subjects, etc	10
04.	<b>Critical Appraisal Of Scientific Article – Published In Scientific Journal:</b> What is Critical Appraisal and Why Critical, Present Scenario of Scientific publications, Methodology of Critical Appraisal, Format for Critical Appraisal	10
05.	<b>Good Laboratory Practice:</b> SOP in lab practice, Bio-safety Disposal, Ethical practices, Standardization of techniques and instruments.	10
06.	<b>Ph. D Programme Orientation:</b> Selection Procedure, Entrance test, Open House Discussion, Timely submission of Reports, Change of Guide, etc.	20
07.	<b>Good clinical practices:</b> Legal – Regulatory Framework, U.S. Regulations, Principles of GCP, Fundamentals of GCP, Interactive Workshop, Goals of The Workshop, etc.	10



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[Established under Section 3 of the UGC Act, 1956 vide Government of India Notification No.F.9-19/2000-U.3(A)]

08.	<b>Alternative systems of medicine:</b> Various systems of medicines Sidha, Unani, Homeopathy, Naturopathy, Polanty theory, Reki, Magneto therapy, Chines Acupuncture, Basic principles of Ayurveda, etc.	40
09.	<b>Current Health Problems</b> Emerging and Re-emerging infections in the world and in India <b>Health care delivery systems in India</b> <b>National population policy</b> <b>National health policy.</b> <b>National rural health mission (NRHM program), RCH program</b> <b>Population explosion causes and its impact.</b>	20
10.	<b>Research Methodology:</b> <b>Defining Research Questions, Study designs, Clinical Trials:</b> <b>Grant Writing:</b> Scientific method of acquiring knowledge and establishing the truth, Selection of Topic, Validity, Research hypothesis/ question, Study designs, Cohort case control, Randomized clinical Trial, Cross Sectional Study, etc.	30 10 10
11.	<b>General Principles on ethical considerations involving human participants:</b> <b>Process of Informed Consent, Ethical review procedures:</b> Ethical considerations for Clinical research for human subjects and for Animal experiments, GCP and ICH guidelines, Do and Donts of consent, etc.	10 10
12.	<b>Library Work</b>	50
	<b>Total</b>	<b>300</b>