

Syllabus for Course work
Ph.D in Foods and Nutrition
Paper I - Research Methodology

Unit I

Meaning of Research – process of research, objectives of research. Developing a research proposal, presentation of a problem, objectives, method, work plan, Personnel, facilities and budget. Identifying the problem- defining and delimiting the problem, types of research – fundamentals, applied, action experimental and descriptive.

Research ethics: research ethics, principles and challenges in Foods and nutrition, Challenges for conducting clinical research, Regulatory ethical issues for dietary supplements.

Unit II

Hypothesis – meaning and importance, kinds of hypothesis. Variables – meaning and identification in relation to the research problem – independent, dependent, control and intervening variables. Different type of experimental designs – experimental designs with one variable, experimental design with two or more variables, two by two designs, before and after control group, post test only control group design, salmon four group design.

Unit III

Research tools – questionnaire, interview schedule, observation, experimentation, attitude scale, check list, socio gram. Scaling techniques – different types – nominal, ordinal, ordinal, interval and ratio. Characteristics of tools – reliability and validity. Sampling design – probability, non- probability sampling.

Unit IV

Data analysis – quantitative, qualitative, presentation of data – tables, graphs, illustrations, foot notes and bibliographical presentations. Research reports – basic concepts of research report.

Unit V

Normal probability and its uses. Parametric tests – large and small samples, Non-parametric tests, Analysis of Variance – one way and two way classifications. Multiple and partial correlation – concepts only.

Reference

1. S.P.Gupta (1993), Statistical methods, Sultan Chand and sons, Daryagan, New Delhi.
2. Kothari C.R.(1991) Research Methodology, methods and techniques, Wiley Eastern Ltd, New Delhi
3. Wilkinson and Bhandarkar. P.L.C.Methodology and techniques of social research, Himalaya Publishing house, Bombay.
4. Sharma, B.A.V.Prasad, R.D and Sathyanarayana.P(1995) Research methods in social sciences, sterling publishers, New Delhi.