M.A H.sc -305
Statistics and research methodology(inter disciplinary)

Objectives:

- To enable students to develop the ability to present and interpret data in a research report or thesis.
- To expose the students to the various statistical techniques, to an alyse and interpret data meaningfully.

Unit 1:

1. Meaning of stastics , its scope ,uses, and limitation in the field of home science.
2. Primary and secondary data & methods of collecting :
   -primary data: direct personal observation, through agencies, ma iled questionaries.
   -secondary data: precaution in the use of secondary data, its application in various disciplines of home science.

3.concepts of population and sample: advantages of sampling, methods of sampling , simple and random sampling, stratifie s and purposive sampling.

Unit 2:

1. Classification of data , construction of a frequency distribution.
- Concept of central tendency : mean , median, and mode ,harmonic mean ,geometric mean.
- Advantages and disadvantages of its application.

2. Measures of dispersion , standard deviation, coefficient of variation.

3. Correlation :coefficient of correlation , karl person method, coefficient of rank correlation and product moment.

4.Estimation of population : mean, standard error and confidence interval , application i n the field of home science.

Unit 3:

1. Introductions to designs CRD, RBD and factorial designs ,analysis and application in the field of home science.
2. An introduction to test procedure and hypothesis , test of significance x2, t test and F test , various application in the field of home science.
3. An introduction to research
   - The scientific method and its application in the field of home science.
   - Selection and definition of a problem.
   - Writing research proposal.

Unit 4: research methods and procedure.

1. The historical method and the descriptive method.
2. The corelational method and the casual comparative method.
3. The experimental method.

References:

1. Kapoor , v.k .bussiness mathemetics, sultan chand & son's delhi.
2. Spiegel , M.R probability and statistics .
3. Elhence ,D.N fundamental of statistics.
4. Bhardvaj and sexsens : fundamental of statistics.