

DEPARTMENT OF STATISTICS
GOVT. ARTS COLLEGE, ARYALUR - 621 713

COURESE OUT COME

Descriptive Statistics (16SCCBS1)

- CO1 Organize, manage and present data.
- CO2 Analyze statistical data graphically using frequency distributions and cumulative frequency distributions.
- CO3 Analyze statistical data using measures of central tendency, dispersion and location.

Probability Theory (16SCCBS2)

- CO1 Use the basic probability rules, including additive and multiplicative laws, using the terms, independent and mutually exclusive events.
- CO2 Translate real-world problems into probability models.
- CO3 Derive the probability density function of transformation of random variables
- CO4 Calculate probabilities, and derive the marginal and conditional distributions of bivariate random variables.
- CO5 Analyze Statistical data using MS-Excel

Theoretical Discrete Distributions (16SCCBS3)

- CO1 Use discrete and continuous probability distributions, including requirements, mean and variance, and making decisions.
- CO2 Define binomial outcomes and compute probability of getting X successes in N trials.
- CO3 Identify the characteristics of different discrete and continuous distributions.
- CO4 Identify the type of statistical situation to which different distributions can be applied.
- CO5 Use Poisson, exponential distributions to solve statistical problems.

Theoretical Continuous Distributions (16SCCBS4)

- CO1 Use the normal probability distribution including standard normal curve calculations of appropriate areas.
- CO2 Partial differential equations used to formulate problems involving functions of several variables, used to create a computer model.
- CO3 This subjects the recent progress in linear and nonlinear partial differential equations. The real life of partial differential equations is heat and mass transfer and electrometric theory

PROGRAM SPECIFIC OUTCOME

B Sc STATISTICS

By the end of a degree program in Statistics, a student will:

- PSO1 Have the **versatility** to work effectively in a broad range of analytic, scientific, government, financial, health, technical and other positions.
- PSO2 Have a **broad background** in statistics, an appreciation of how its various sub-disciplines are related, the ability to use techniques from different areas, and an **in-depth knowledge** about topics chosen from those offered through the department.
- PSO3 Recognize the importance and value of mathematical and statistical thinking, training, and approach to problem solving, on a diverse variety of disciplines;
- PSO4 Be familiar with a variety of examples where mathematics or statistics helps accurately explain abstract or physical phenomena;
- PSO5 Recognize and appreciate the connections between theory and applications;
- PSO6 Be able to independently read statistical literature of various types, including survey articles, scholarly books, and online sources
- PSO7 Be life-long learners who are able to independently expand their statistical expertise when needed, or for interest's sake.

PROGRAM OUTCOME

B Sc Statistics

- PO1 Find employment utilizing their statistical knowledge.
- PO2 Use statistical knowledge to identify and solve problems.
- PO3 Undertake graduate studies related to statistics.
- PO4 convert a problem description into testable research hypotheses.
- PO5 select appropriate statistical tools to investigate a research hypothesis.
- PO6 apply appropriate statistical methodology and interpret results in a variety of settings.
- PO7 apply likelihood principles and calculus to derive fundamental results in Probability, estimation and hypothesis testing.
- PO8 select standard experiment designs, with consideration of selection process, data Collection, issues of bias, causality and confounding, based on specifications of a scientific study.
- PO9 write code to extract and reformat real data and to utilize statistical programming Environments.
- PO10 identify limitations to statistical results and avoid misleading quantitative analysis.
- PO11 Effectively present statistical findings to an audience lacking statistical expertise And work collaboratively.