

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

Name of the Program: Undergraduate Programs

| SUBJECT CODE | Category | SUBJECT NAME | TEACHING & EVALUATION SCHEME | | | | | | | | | |
|-----------------|---------------------|-----------------------|------------------------------|-----|-----|------------|-----|----|---|---|-------|--|
| | | | THEORY | | | PRACTICAL | | | | _ | ST | |
| | | | END SEM | MST | Q/A | END SEM | Q/A | Th | Т | Р | CREDI | |
| GUMA601 | Generic Elective | Testing of Hypothesis | 60 | 20 | 20 | 0 | 0 | 4 | 0 | 0 | 4 | |

Course Objective

To introduce the students to the Fundamentals of the Hypothesis Theory

Course Outcomes

After the successful completion of this course, students will be able to apply the testing of hypotheses in real-life situations.

Unit-I

Introduction: null and alternative hypothesis, critical region and acceptance region, Type I and Type II error, level of significance, p-value, power of the test, confidence interval.

Unit-II

Small sample test: t-test for single mean, t-test for difference of means, paired t-test, critical value table of t-test, confidence limits.

Unit-III

F-test for equality of two population variances, critical value table of F-test, confidence limits.

Unit-IV

Exact sample test: Chi-square test for 'Goodness of fit'.

Unit-V

Test of independence of attributes.



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Reference Books:

- 1. Fundamentals of mathematical statistics, S.C. Gupta and V.K. Kapoor, sultan chand $\&\ sons$
- 2. Fundamental of statistics, Goon, Gupta and Dasgupta.
- 3. Statistical Methods: An Introductory Text, J. Medhi.