

**B.Sc. SEMESTER-IV
STATISTICS
GUJARAT UNIVERSITY
EFFECTIVE FROM - JUNE 2023
ACCORDING TO NEP – 2020**

Course Structure with credits, Lecture hours, and Marks

Course Type	Course	Credit	Work Hours/ Week	Exam Hours	Marks		Total Marks
					Internal	External	
Skill Enhancement Course	SEC STS 246: Basic Statistical Analysis Using JAMOVİ	2	3	2	25	25	50

**N.B.: Each practical batch should have 10 students
No. of students per batch during practical exam = 10**

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B. Sc. Sem IV

SEC STS 246: Basic Statistical Analysis Using JAMОВI

Course Outcomes:

- To train students in JAMОВI Software
- To expose the students to advanced statistical analysis using Jamovi

Unit 1: Basic Statistical Analysis Using Jamovi

(15 Hours)

Introduction to Statistical Hypothesis

- Introduction to Statistical Hypothesis
- Setting up Null and Alternative Hypothesis
- Errors in Hypothesis Testing
- One Sample t-test
- Independent Sample t-test
- Paired t-test

Chi-square Test

- Binomial test for proportion
- Chi-square test of association
- Chi-square test of Goodness of Fit
- Testing the Significance of the Correlation coefficient

Correlation Analysis

- Introduction to Correlation, Pearson's Correlation Coefficient, Spearman's Correlation Coefficient, Kendall's Tau Correlation Coefficient
- Testing the Significance of the Correlation coefficient

Regression Analysis

- Fitting Linear Regression
- Testing the significance of the regression coefficients

Unit 2: Practicals based on Unit 1

(30 Hours)

References:

- The jamovi project (2022). jamovi. (Version 2.3) [Computer Software]. Retrieved from <https://www.jamovi.org>.
- Navarro DJ and Foxcroft DR (2022). learning statistics with jamovi: a tutorial for psychology students and other beginners. (Version 0.75). DOI: 10.24384/hgc3-7p1