

DEPARTMENT OF PSYCHOLOGY

Category II

Psychology Courses for Undergraduate Programme of study
with Psychology as one of the Core Disciplines
(B.A. Programme with Psychology as Major discipline)

DISCIPLINE SPECIFIC CORE COURSE - 7: STATISTICAL METHODS AND PSYCHOLOGICAL TESTING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-7 Statistical Methods and Psychological Testing	4	3	0	1	Passed Class 12 th	Basic knowledge of introductory psychology

Learning Objectives

The Learning Objectives of this course are as follows:

- To foster an understanding of the techniques of descriptive statistics.
- To familiarize students with the statistical skills necessary to interpret scores obtained from psychological tests.
- To learn the fundamentals of psychological testing.

Learning Outcomes

After completing this course, the student will be able to:

- Apply the knowledge of descriptive statistics in psychological testing
- Present numerical data graphically.
- Administer and interpret objective psychological tests

SYLLABUS OF DSC - 7

Unit- I

(10

Hours)

Relevance of Statistics in Psychology; Descriptive and Inferential Statistics; Scales of Measurement; Graphical Representation of Data (Histogram, Bar Diagram, Frequency Polygon)

Unit- II

(10

Hours)

Measures of Central Tendency: Definition; Properties and Comparison; Calculation of Mode, Median and Mean from Raw Scores; Measures of Variability: Range; Variance; Standard

Deviation (Properties and Comparison); Calculation of Range, Variance and Standard Deviation from Raw Scores

Unit- III

(15

Hours)

Standard (z) Scores: Standard Scores; Properties of z-Scores; Transforming Raw Scores Into z-Scores, Determining Raw Scores From z-Scores, Some Common Standard Scores, Comparison of z- Scores and Percentile Ranks; The Normal Probability Distribution: Nature, Properties and Applications

Meaning of Correlation; Correlation and Causation; Calculating Pearson's Correlation Coefficient from Raw Scores

Unit- IV

(10 Hours)

Defining features of a psychological test, Reliability, Validity, Norms, Types of tests, Applications and Ethical issues.

Practical component –

(30 Hours)

Suggestive list of practicals:

1. Graphical presentation of data
2. Problems based on mean, median, mode
3. Problems based on variance and standard deviation
4. Problems based on Pearson's correlation
5. Intelligence test
6. Personality test

Essential/recommended readings

Chadha, N. K. (2009). *Applied Psychometry*. SAGE Publications India.

Gregory, R.J. (2017). *Psychological Testing: History, Principles, and Applications* (7th Ed.). Pearson Education.

King, B.M., Rosopa, P.J., & Minium, E.W. (2018). *Statistical Reasoning in the Behavioral Sciences* (7th Ed.). Wiley.

Murphy, K.R. & Davidshofer, C.O. (2019). *Psychological Testing: Principles & Applications* (6th Ed.). Pearson Education.

Suggestive readings

Aron, A., Coups, E.J. & Aron, E.N. (2013). *Statistics for Psychology* (6th Ed.). Pearson Education.

Garrett, H.E. (2005). *Statistics in Psychology and Education*. Paragon International Publishers.

Mangal, S.K. (2010). *Statistics in Psychology and Education* (2nd Ed.). PHI Learning.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.