

Department of Liberal Education
Era University, Lucknow
Course Outline
Effective From: 2023-24

Name of the Program	B.A. / B.Sc. (LIBERAL EDUCATION)			Year/ Semester:	3rd /6th
Course Name	Foundation of Psychological Assessment and Statistical Research	Course Code:	PSY307	Type:	Theory
Credits	03			Total Sessions Hours:	45 Hours
Evaluation Spread	Internal Continuous Assessment:	40 Marks		End Term Exam:	35 Marks
Type of Course	<input type="radio"/> Compulsory	<input checked="" type="radio"/> Core	<input type="radio"/> Creative	<input type="radio"/> Life Skill	
Course Objectives	The objective of this course is to build-up the potential in students to comprehend the nature of psychological data, deep understanding of psychological tests & various psychological tools and their appropriate applicability on obtained data.				
Course Outcomes (CO): <i>After the successful course completion, learners will develop following attributes:</i>					
Course Outcome (CO)	Students will be able to understand different types of validity, variability of psychological data and the methods of calculating variability.				
CO1	Students will be able to understand the components of psychological research and ethics of conducting it.				
CO2	Students will be able to understand the different types of reliability tests and various methods of measuring central tendency of data.				
CO3	Students will be able to understand about the basic statistical tools and techniques and will be able to make selection accordingly				
CO4	Students will be able to understand the standard scores and their distribution on NPC, calculation of correlation and the aspects involved in test construction.				
Pedagogy	Interactive, discussion-bases, student-centered, presentation.				
Internal Evaluation Mode	Mid-term Examination: 20 Marks Class test: 05 Marks Online Test/Objective Test: 05 Marks Assignments/Presentation: 05 Marks Attendance: 05 Marks				
Session Details	Topic			Hours	Mapped CO
Unit 1	Introduction to Psychological Research and Statistics <ul style="list-style-type: none"> ● Relevance of Statistics in Psychological Research ● Descriptive and Inferential Statistics ● Measurement Approaches, Scales, and Issues ● Errors in Measurement ● Distinction between Assessment and Measurement ● Ethical Issues in Psychological Testing and Research 			08	CO1

Unit 2	Reliability and Central Tendency <ul style="list-style-type: none"> Types of Reliability: Test-Retest, Alternate/Parallel, Split-Half, Kuder-Richardson, Inter-Scorer Reliability Measures of Central Tendency: Mode, Median, Mean Calculation of Mode, Median, and Mean from Raw and Grouped Scores Properties and Comparison of Measures of Central Tendency Effects of Linear Transformations on Central Tendency Measures 	12	CO1, CO2, CO3, CO4
Unit 3	Validity and Variability <ul style="list-style-type: none"> Types of Validity: Face and Content Validity, Criterion-Related Validity, Construct Validity (Concurrent vs. Predictive) Measures of Variability: Range, Semi-Interquartile Range, Variance, Standard Deviation Calculation of Variance and Standard Deviation from Deviation Scores and Raw Scores Properties and Comparison of Measures of Variability 	12	CO1, CO2, CO3, CO4
Unit 4	Standard Scores, Correlation, and Test Development <ul style="list-style-type: none"> Standard (z) Scores: Properties, Transformation from Raw Scores, Common Standard Scores, Comparison with Percentile Ranks The Normal Probability Distribution: Nature, Properties, Standard Normal Curve, Finding Areas and Scores from the Normal Curve, Normal Curve as a Model Correlation: Meaning, Scatterplot, Coefficient of Correlation (Pearson's and Spearman's), Correlation and Causation, Effects of Score Transformations Test Development: Defining the Test, Scaling Methods, Item Construction, Item Analysis, Test Revision, Test Publication, Characteristics of a Good Psychological Test 	13	CO1, CO3, CO4

CO-PO and PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	1	1	1	1	2	3	2	2	2	1	3	3	1	3
CO2	2	3	1	2	1	1	3	2	3	1	2	3	2	3
CO3	2	2	2	2	2	1	2	2	3	3	3	3	3	3
CO4	2	2	2	3	3	3	2	2	3	2	3	3	3	3

Strong contribution-3, Average contribution-2, Low contribution-1,

Suggested Readings:

Text- Books	<ul style="list-style-type: none"> Anastasi, A. & Urbina, S. (2016). Psychological Testing (7th edition). Pearson. Singh, A. K. (2019). Tests, Measurements, and Research Methods in Behavioral Sciences (6th edition). Bharti Bhawan. Garrett, H. E., & Woodworth, R. S. (1979). Statistics and Psychology in Education. New York: David McKay Company. Chadha, N. K. (1991). Statistics for Behavioral and Social Sciences. Reliance Pub. House: New Delhi.
Reference Books	<ul style="list-style-type: none"> Breakwell, G.M., Smith, J.A., & Wright, D.B. (2012). Research methods in Psychology (4th ed.). Sage.

Para Text	Suggested Articles/ Movies/Short Film/ Videos
Unit 1	<ul style="list-style-type: none"> • https://egyankosh.ac.in/bitstream/123456789/65177/3/Unit-1.pdf (What is Statistics?) • https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6206790/ (Scales of Measurement) • https://www.apa.org/pubs/journals/releases/amp-54-8-594.pdf (Application of Statistics)
Unit 2	<ul style="list-style-type: none"> • https://onlinelibrary.wiley.com/doi/10.1002/qre.1241 (Normal probability Curve) • https://www.ncbi.nlm.nih.gov/books/NBK557882/ (Types of Variables) • https://www.youtube.com/watch?v=BJZpx7Mdde4 (Errors) • https://www.youtube.com/watch?v=ZMSNf76Zav4 (Sampling Methods)
Unit 3	<ul style="list-style-type: none"> • https://egyankosh.ac.in/handle/123456789/7507 - Central Tendency • https://www.yourarticlelibrary.com/social-research/asures-of-dispersion-social-research/92921 - Measures of Dispersion • https://statisticsbyjim.com/basics/percentiles/ -Percentile • https://www.youtube.com/watch?v=9cR_afGN0Hs – Correlation • https://www.youtube.com/watch?v=fKZA5waOJ0U (T Test)
Unit 4	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=p8lr1kNdRLQ (Reliability and Validity) • https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4535087/ (Reliability and Validity) • https://www.ncbi.nlm.nih.gov/books/NBK321/ (Psychological tests) • https://www.sciencedirect.com/topics/social-sciences/test-construction (Test Construction)

Recapitulation & Examination Pattern

Internal Continuous Assesment:

Component	Marks	Pattern
Mid Semester	20	Section A: Contains 10 MCQs/Fill in the blanks/One Word Answer/ True-False type of questions. Each question carries 0.5 mark . Section B: Contains 07 descriptive questions out of which 05 questions are to be attempted. Each question carries 03 marks .
Class Test	05	Contains 05 descriptive questions . Each question carries 01 mark.
Online Test/ Objective Test	05	Contains 10 multiple choice questions . Each question carries 0.5 mark.
Assignment/ Presentation	05	Assignment to be made on topics and instruction given by subject teacher
Attendance	05	As per policy
Total Marks	40	

Course created by: Dr. Madhu Pandey

Signature:

Approved by: Prof. Meenakshi Gupta

Signature:

