



National Institute of Technology Meghalaya
An Institute of National Importance

CURRICULUM

Programme	Doctor of Philosophy (Ph.D.)	Year of Implementation	2025-26
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Department	Humanities and Social Sciences	Semester	I/II
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Course Code	Course Name	Prerequisite	Credit Structure				Marks Distribution			
			L	T	P	C	INT	MID	END	Total
			2	0	0	2	50	50	100	200
HS510	Data Analysis in Psychology	Nil		COs	Statement			Bloom's Taxonomy		
Course Objectives	To understand the basic concept of data analysis	Course Outcomes	CO1	Understanding the basic ideas of data analysis			Understanding			
	CO2		Understanding the quantitative data analysis techniques			Understanding				
	CO3		Understanding the qualitative data analysis techniques			Understanding				

SYLLABUS

No	Contents	Hours	COs
I	Basic concepts in Data analysis: Definition, Primary and secondary data, Variable, Organising and describing data, Levels of Measurement	6	CO1
II	Statistics in psychology: Descriptive and inferential statistics, Normal Distribution, Hypothesis, Significance Testing Approach, Univariate analysis and multivariate analysis, Parametric and non-parametric tests	6	CO2
III	Univariate and Bivariate Analysis: t-test, ANOVA, Correlation, Linear Regression, ANCOVA, Non-Parametric tests, Post-Hoc Analysis	8	CO2
IV	Introduction to Multivariate Analysis: MANOVA, Introduction to SEM, Multiple regression, Logistic regression, Factor Analysis, Data Analysis using SPSS/JAMOVl, Reporting of Quantitative data Analysis	8	CO2
V	Qualitative Data Analysis: Basic concepts, Qualitative Data, Treatment of Data, Analysis and Reporting	6	CO3
VI	Data Analysis techniques: Thematic Analysis, Content Analysis, Interpretive Phenomenological Analysis, Narrative Analysis, Grounded Theory	8	CO3
Total Hours		42	

Essential Readings

1. Gravetter, F. J. & Wallnau, L.B. (2017). Statistics for Behavioral Sciences (10th Ed). Cengage learning
2. Heir, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2019). Multivariate Data Analysis (8th Ed). Cengage learning
3. Camic, P.M., Rhodes, J.E., Yardley, L. (2003). Qualitative Research in Psychology: Expanding Perspectives in Methodology and Design. American Psychological Association

Supplementary Readings

1. Smith, J.A. (2004). *Qualitative Psychology: A Practical Guide to Research Methods*. SAGE Publications
2. Taylor, S.J., Bogdan, R., & DeVault, M.L. (2016). *Introduction to Qualitative Research Methods* (4th Ed). Wiley
3. Pagano, R.R. (2013). *Understanding Statistics in the Behavioral Sciences* (10th Ed). Wadsworth, Cengage Learning
4. American Psychological Association. (2020). *Publication Manual of the American Psychological Association* (7th Ed). American Psychological Association