

DEPARTMENT OF EDUCATION
ALIGARH MUSLIM UNIVERSITY, ALIGARH

PH.D.COURSE WORK

PED-01

Theory : 60

Sessional : 40

ADVANCED TECHNIQUES OF RESEARCH

- UNIT - I : Quantitative and Qualitative Research :**
- i. Nature and characteristics,
 - ii. Similarities and Differences.
 - iii. Steps in conducting qualitative research.
 - iv. Ethnography and Phenomenological research
- UNIT - II : Research Designs :**
- i. Meaning, purposes, general principles;
 - ii. ANOVA and its applications.
 - iii. Randomized groups, matched groups and factorial design.
 - iv. Use of ANCOVA in analysis of experiments.
- UNIT - III : Multivariate Analysis :**
- i. Types of correlation : simple, biserial, point biserial and phi-coefficients.
 - ii. Partial and Multiple correlation and prediction.
 - iii. Multiple Regression analysis.
 - iv. Use of computer in data analysis with special reference to SPSS.
- UNIT - IV : Factor Analysis :**
- i. Concept and fundamental theorems
 - ii. Graphical representation.
 - iii. Approaches to factor analysis
 - iv. Centroid method : Computation of first factor loadings.
- UNIT - V : Analysis and Reporting of Research :**
- i. Types of Research Reports.
 - ii. Dissemination of research results : Articles, Research papers and Seminar Readings;
 - iii. Reviewing, summarizing and abstracting research.
 - iv. Writing a Thesis/Dissertation, Research paper/article.

RECOMMENDED BOOKS /REFERENCES:

1. Best John W. & Kahn J.V. : Research in Education, (ninth Edition), Pearson Prentice Hall, 2003.
2. Gay L.R. : Educational Research, (41st Edition) Macmillan Publishing Co. (1992)
3. Kerlinger F.N. : Foundations of Behavioural Research, Surject Publications, Delhi (2005)
4. Guilford J.P. & Fruchter B. : Fundamental Statistics in Psychology and Education, McGraw Hill, 1981.

5. Guilford J.P. : Psychometric Methods, McGraw Hill, 1954.
6. Winer B.J. : Statistical Principles in Experimental Design : McGraw Hill (1981)
7. Nunnally J.C. : Psychometric Theory, Tata McGraw Hill.
8. McNemon Q. Psychological Statistics, J.Willey 1962.
9. Ferguson G.A. : Statistical Analysis in Psychology and Education, McGraw Hill, 1959.
10. Creswell John W. : Educational Reserch Prentice Hall of India; PHI Learning Pvt.Ltd., New Delhi.