



# **SYLLABUS**

# **PSYCHOLOGY**

**For**

**Pre-Ph.D. Coursework**

**Offered by**

**Department of Psychology**

**Deen Dayal Upadhyay Gorakhpur University**

**(NAAC accredited A++)**

**Gorakhpur, Uttar Pradesh**

## **CONTENT**

### **COURSE**

### **PAGE NO.**

**RESEARCH AND PUBLICATION ETHICS**

**3**

**RESEARCH METHODOLOGY**

**4**

**INNOVATIVE RESEARCH APPROACHES IN PSYCHOLOGY**

**5**

**COURSE CODE: RPE-700**

**COURSE CREDIT = 1+1**

**COURSE TITLE: RESEARCH AND PUBLICATION ETHICS**

**COURSE TYPE: Theory**

**Course Objective:** The major focus of the course is-

- To understand the importance of ethics and integrity in research.
- To learn the publication ethics.
- To gain the understanding of technical aids available for ethical practice in research.

**Course Outcomes:** After the completion of the course, the student shall be able to-

- Follow Publication ethics in their research work.
- Operate technical aids provided for standard practice of ethical research.
- Maintain ethical behavior and code of conduct in research.
- 

**Unit –I (Theory) Philosophy and Ethics, Introduction to Philosophy:**

Definition, nature, scope, concept, branches Ethics: definition, moral philosophy, nature of moral judgment and reactions. Scientific Conduct, Research ethics, research Intellectual honesty and research integrity, copyright, Scientific misconduct: falsification, fabrication, and Plagiarism (FFP), Redundant Publication: duplication and overlapping publication salami slicing, Selective reporting, and misrepresentation of data

**Unit –II (Theory): Publication Ethics:**

Definition, introduction, and importance Best practice/standard setting initiative and guidelines: COPE, WAME, etc. Conflict and interest, Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa, type, Violation of publication ethics, authorship and contributor-ship, Predatory publisher and journals, Avoiding Plagiarism. Preparing documents for MoUs, Confidentiality Agreements

**Unit –III (Practice) Open access publication and initiatives:**

SHERPA/ROAMEO online resource to check publisher copyright and self-archiving policies, Software tool to identify predatory publication developed by SPPU Journal finder/journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer, Journal Suggester, etc. Publication Misconduct, Subject Specific Ethical Issues FFP, authorship Complaints and appeals: examples and fraud from India and abroad. Software tools: Use of Plagiarism Software Like Turnitin, Urkund, and Other Open-Source Software Tools.

**Unit –IV (Practice): Database and research metrics:**

Indexing database, Citation database: Web of Science, Scopus, etc. Research metrics: Impact Factor of Journal as Per Journal Citation Report, SNIP, SJR, IPP, Cite Score Metrics: h-index, g-index, i-10 index, altmetrics.

**Suggested Readings**

- (1) Bird, A (2006). Philosophy of Science. Routledge.
- (2) MacIntyre, Alasdair (1967) A short history of Ethics, London
- (3) P. Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978-9387480865
- (4) National Academy of Sciences, national Academy of Engineering and Institute of Medicine (2009) On Being A Scientist: A guide to Responsible conduct in Research. Third Edition. National Academics Press.
- (5) Resnik, D. B. (2011). What is ethics in research & why is it important? National Institute of Environmental Health Sciences, 1-10. Retrieved from <http://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>
- (6) Bcall, J. (2012). Predatory publishers are corrupting open access. Nature, 489 (7415), 179. <https://doi.org/10.1038/489179a>
- (7) Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019), ISBN:978-81-939482-1-7. [http://www.insaindia.res.in/pdf/Ethics\\_Book.pdf](http://www.insaindia.res.in/pdf/Ethics_Book.pdf)

**COURSE CODE: PSY701N**

**COURSE CREDIT= 5+0**

**COURSE TITLE: RESEARCH METHODOLOGY**

**COURSE TYPE: Theory**

**Course Objectives:** The major focus of the course is-

- To foster a deep conceptual understanding of research methodology within the applied fields of psychology, emphasizing its significance and relevance to students.
- To delve into various techniques for sample selection, acquiring practical skills in navigating the complexities of data processing through both parametric and non-parametric statistical analyses of quantitative and qualitative data sets.
- To explore the diverse research designs.

**Course Outcomes:** After the completion of the course, the student shall be able to-

- Know about the basics of scientific research in psychology.
- Learn the statistical rigors in designing research and processing data.
- Apply basic framework of research process, research designs and techniques.

**Unit I: Components and Process of Research**

Scientific Research: Meaning, Importance and Limitations. Nature of Data, Defining and Stating a Research Problem, Criteria of a Good Problem; Meaning, Criteria and Types of Hypothesis, Formulation and Stating a Hypothesis. Variables: Concept and Types, Primary and Secondary data.

**Unit II: Sampling and Design**

Nature and Types of Sampling, Sample Size and other Attributes.  
Introduction to Experimental Designs; Experimental Designs as Variance Control,  
Types: Experimental and Quasi-Experimental Designs; Mixed Methods Design,  
Non-Experimental Designs, Single Case Experimental Design.

**Unit III: Factorial Experiments**

Factorial Experiment: Nature and Assumptions; Between Group Factorial Experiments, Repeated Subject Experiment; Repeated Measures on One Factor; Two Factors and All Factors.

**Unit IV: Psychological Assessments**

Meaning of Psychological Assessment and Psychometrics, Historical Background, Core Characteristics of Assessment; Scaling Techniques; Nature and Classification of Psychological Tests.

**Unit V: Tool Construction and Standardization**

Steps to Develop Psychological Tests; Item Analysis: Item Difficulty and Item Discrimination, Item Response Theory, Factors Related to Construction of Tools; Rational Test Construction, Empirical Test Construction, Factor Analytic Test Construction. Various Methods of Estimating Reliability and Validity. Test Norms- its Types, Development of Norms.

**Recommended books:**

Kerlinger, F. N. (2018). *Foundations of behavioral research*. USA: Holt, Rinehart & Winston.  
Chadha, N. K. (2019). *Applied psychometry*. New Delhi, India: Sage.  
Anastasi, A., (1988), *Psychological Testing*; 6<sup>th</sup> Ed. New York: Mc Millan Publishing Company.  
Bridget, S., & Cathy, L. (Eds.) (2008). *Research methods in the social sciences*. New Delhi, India: Vistaar Publication.  
Howell, D. C. (2002). *Statistical methods for psychology* (5th ed.). Duxbury, California: Thomson Learning.

Broota, K. D. (2020) (2nd ed.). Experimental design in behavioural research. New Age International.

**COURSE CODE: PSY702N**

**COURSE CREDIT= 5+0**

**COURSE TITLE: INNOVATIVE RESEARCH APPROACHES IN PSYCHOLOGY**

**COURSE TYPE: Theory**

**Course Objectives:** The major focus of the course is-

- To familiarize students with the philosophical foundations, goals, and scope of innovative research approaches in Psychology.
- To cultivate an understanding of the intricate relationship between different paradigms of science and the methodologies employed in qualitative research.
- To equip students with the basic procedures necessary for effectively utilizing qualitative methodology in their research endeavours.

**Course Outcomes:** After the completion of the course, the student shall be able to-

- Understand the historical perspectives concerning the nature meaning and types of psychological assessment.
- Develop the ability to select and evaluate tests for specific purposes, populations, situations, and settings.
- Gain an insight about innovative techniques of data collection in psychology.
- Gain an understanding about basic procedures of using qualitative methodology
- Develop an understanding about the different types of non-parametric tests and their assumptions

### **Unit I: Multivariate Approach to Research**

Multivariate Methods, Introduction of Factor Analysis, Structural Equation Modelling, Discriminant Function Analysis, Multivariate Regression; Therapeutic Module Effectiveness Testing.

### **Unit II: Qualitative methods**

Qualitative Methods: Theoretical Background, Qualitative Research Designs, Triangulation, Mixed Design Methods, Grounded Theory, Discourse Analysis, Narrative Analysis, Ethnography, Interpretative Phenomenology (IP); Case Study and Action Research; Focus Group Research.

### **Unit III: Social and Cross Cultural Approaches**

Ethnographic Fieldwork, Participatory and Non-Participatory Observation, Ethno-Psychological Investigation, Emic and Etic Approaches, Culture Comparative Studies, Cross-Indigenous Methods, Meta Theory Approach and Constructive Realism. Cooperative Inquiry, Community Based Research, Feminist Approach.

### **Unit IV: Neuro Imaging and Artificial Intelligence**

Neuro-Biofeedback, Brain Finger Printing, MRI, CT, Polygraph, Narcoanalysis, Invasive and Non- Invasive Techniques, Video Diaries, Social Media Posts, Screen Recordings, Geo-Location Tracking. Use of Statistical Software- SPSS, R Package, NVivo, ATLAS.ti, MATLAB

### **Unit V: Intervention and Evaluation Approaches**

Designs of Intervention, Evaluation of Intervention, Evidence Based Intervention, Intervention Issues: Process and Ethical Issues.

### **Recommended Books:**

Broota, K. D. (2020) (2nd ed.). Experimental design in behavioural research. New Age International.

Anastasi, A., (2012), Psychological Testing; 6th Ed. New York: Mc Millan Publishing Company

Kothari, C. R. (2010). Research Methodology: Methods and Techniques. New Delhi: New Age International.

Denzin, N. K., & Lincoln, Y. (2005). Handbook of qualitative research. Thousand Oaks, CA: Sage. <sup>5</sup>

Gliner, J. A., & Morgan, G. A. (2000). *Research methods in applied settings: An integrated approach to design and analysis*. Mahwah, NJ: Lawrence Erlbaum.