BA APPLIED PSYCHOLOGY

**Core Course Title: Applied Research Methods and Statistics**

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| **Course Category: PS 116 Schedule of Offering: 3rd Semester****Course Credit Structure: 4 Credits*** **Lecture: 3 Hours per week**
* **Tutorial: 1 Hour per week**

**Contact Hours per week: 4 Hours per week** **Course Instructor: Prof. K. Krishna Mohan** |

**1.Introduction:**

To introduce thenature of research and statistical methods and techniques. This course will provide brief overview of research and familiarize use of statistical methods in psychological research and the techniques of descriptive statistics for quantitative research. The aim of the course is to help students to understand basics in research and statistical methods used in research. The course will prepare students to take up advanced courses in applied psychology.

**2.Course Objectives**

* To understand the methods and techniques in quantitative research.
* To familiarize students with the use of statistical methods in psychological research and the techniques of descriptive statistics for quantitative research

**3.Pre-requisites**

Registration as student in any UG program.

**4.Readings & Reference**

Aron, A., Aron, E.N., & Coups, E.J. (2007).Statistics for Psychology. (4thEd.) India: Pearson Education, Prentice Hall.

Chadha, N.K. (1991) Statistics for Behavioral and Social Sciences. Reliance Pub. House: New Delhi.

Coolican, H. (2006). Introduction to Research Methodology in Psychology. London: Hodder Arnold.

Mangal, S.K. (2012). Statistics in Psychology and Education (2nd Ed.). New Delhi: PHI learning Pvt. Ltd.

Murphy,K.R. & Davidshofer, C. O. (2004). Psychological Testing: Principles & Applications (6th Ed.) New Jersey: Prentice Hall.

**5.Module-wise topics**

 **Module 1: Introduction to Quantitative and qualitative research (8 sessions)**

**Topics:**

* Introduction to Psychological Research
* Relevance of Statistics in Psychological Research
* Difference between quantitative and qualitative research
* Steps in quantitative and qualitative research
* Research Methods: Experimental method, survey method and Focus group discussion

 **Readings**:

Coolican, H. (2006). Introduction to Research Methodology in Psychology. London: Hodder Arnold.

Chadha, N.K. (1991) Statistics for Behavioral and Social Sciences. Reliance Pub. House: New Delhi.

 **Module 2 : Levels of measurement (11 sessions)**

**Topics:**

* Measures of Central Tendency and Variance
* Calculation of Mode, Median and Mean from Raw Scores and Grouped Scores
* Properties and Comparison of Measures of Central Tendency
* Central Tendency Measures in Normal and Skewed Distributions
* Normal distribution: nature & properties

**Readings**:

Aron, A., Aron, E.N., & Coups, E.J. (2007).Statistics for Psychology. (4thEd.) India: Pearson Education, Prentice Hall.

**Module 3: Correlation (14 sessions)**

**Topics:**

* The Meaning of Correlation
* Historical Perspective
* The Scatterplot of Bivariate Distributions
* Calculating Pearson’s Correlation Coefficient from derived scores to raw scores
* Spearman Rank Order Correlation Coefficient
* The Coefficient of &Order Correlation Coefficient
* Correlation and Causation
* Types of Correlation
* The Effects of Score Transformations
* Cautions concerning Correlation Coefficients

**Readings**:

Aron, A., Aron, E.N., & Coups, E.J. (2007). Statistics for Psychology. (4thEd.) India: Pearson Education, Prentice Hall.

 **Module 4: Psychological Testing (12 sessions)**

 **Topics:**

* Steps in test development
* Item analysis
* Reliability, validity
* Norms and standardization

**Readings**:

Murphy,K.R. & Davidshofer, C. O. (2004). Psychological Testing: Principles & Applications (6th Ed.) New Jersey: Prentice Hall.

1. **Pedagogy**

The teaching-learning of the course would be organized through lectures, tutorials, presentations. Students would be encouraged to develop an understanding of real life issues and participate in the course and practices in the social context. Practicum is incorporated as an important component in most of the course. ICT and mass media and web based sources (like documentaries, videos, films etc.) will used to make the teaching-learning process interactive, interesting and fruitful.

1. **Evaluation Pattern**

The mode of evaluation would be through a combination of examination (Mid and End semester Exam) 70 marks and internal assessment is 30 marks. The internal assessment include individual and group presentations and practicum submissions as a part of the overall assessment of the students.

* End Semester Examination: 40%
* Mid Semester Examination: 30%
* Group/Individual Presentation: 15 %
* Group Submissions*/*Individual Submissions: 15 %