



**Subject:** Research Methods and Statistic in Psychology –II (MATPY12507)

**Type of course:** Major (core)

**Prerequisite:**

Among then of great importance are first, the actuality of the theme of the research; second-the choice of adequate research instruments and taxonomy to the chosen object field, and third, availability of a research capacity of the author.

**Rationale:**

The rationale for your research is the reason why you decided to conduct the study in the first place. And what is the motivation for asking the question, the knowledge gap. This is often the most significant part of your publication. It justifies the study's purpose, novelty, and significance for science or society.

**Teaching and Examination Scheme:**

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P		C	Theory Marks		Practical Marks		
			ESE		MSE	V	P	ALA	
4	0	0	4	60	30	10	00	50	150

*Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.*



**Course Content:**

Sr. No	Course content	Hrs	% Weightage
1	<b>Secondary Data or Available Data</b> 1.1 Introduction 1.2 Personal Documents 1.3 Source of Personal Documents (Life Histories, Diaries, Letters, Memories) 1.4 Importance and Limitations of Personal Documents 1.5 Public Documents (Published Documents & Un Published Documents)	15	25
2	<b>Computer in Research</b> 2.1 Computer and computer Technology 2.2 Computer System 2.3 Some Important Computer characteristics 2.4 Use of Computer in Research 2.5 Factors determining the use of computers in research 2.6 Use of computers in research report writing.	15	25
3	<b>Statistical Method</b> <b>Product Moment Correlation</b> <b>3.1 Correlation (All formulas)</b> <b>3.2</b> <ul style="list-style-type: none"> <li>- How to find correlation from raw Score.</li> <li>- A method of finding correlations over the differences of alcoholics</li> <li>- Method of finding correlation from given medians</li> </ul> <b>3.3 Kendal's Tau</b> <ul style="list-style-type: none"> <li>- Meaning, Uses, and Limitations of 'Tau'</li> <li>- Calculation of 'Tau' based on minor and major Score</li> <li>- Calculation of 'Tau' when equal sequence</li> </ul>	15	25



4	<b>Tests</b> 4.1 't' test (All methods) 4.2 Chi- square 4.3 One-way analysis of Variance	15	25
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**Continuous Assessment:**

Sr. No	Active Learning Activities	Marks
1	<b>Research Paper Making</b> Students have to prepare a small research paper. Its subjects will be given by subject teachers. Students will then prepare a research paper using research methodology. Then that paper has to be uploaded on the GMIU web portal.	10
2	<b>Data analysis</b> Students will have to research and need to add statistics in research methodology. Students will be given research data and will have to analyze it statistically. Then they have to give presentation and then upload it to the GMIU web portal.	10
3	<b>Chart making</b> Students should submit research stages defined by charts and upload them on GMIU web Portal.	10
4	<b>PPT Presentation and Discussion</b> Students will be given statistical information by the subject teacher. It has to be statistically analyzed and uploaded on the GMIU web portal.	10
5	<b>Assignment</b> Faculty will provide assignment according to Units and students have to Write assignment and submit on GMIU web Portal.	10
Total		50



**Suggested Specification table with Marks (Theory): 60**

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	20%	40%	40%			

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

**Course Outcome:**

After learning the course the students should be able to:	
CO1	Differentiate characteristics of quantitative and qualitative research.
CO2	Formulate a research study.
CO3	Formulate independent, dependent, and mediating variables.
CO4	Use mixed methods research

**Instructional Method:**

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.



**Reference Books:**

- [1] Aron, Authur, Aron, E.N. and Cups, E.J. (2007) statistic for Psychology, New Delhi: Person Education.
- [2] Best, J.W. and Kahn, J.V. (2006) Research Foundation New Delhi Prentice Hall of India Pvt. Ltd.
- [3] Kerlinger, F.N. and Lee H.B. (2000) Foundation of Behavioral Research 4th Edi. New York: Harcourt Collage Publications.
- [4] Mangal S.K. (2008) statistic in Psychology and Education New Delhi: Vistaar Publication
- [5] Arvindrai N. Desai: 'Samajik Sanshodhan Paddhatio' University Granth Nirman Board-Gujarat Rajay Ahmedabad. 1983.
- [6] M. A. Hakim and Bipin Asthana: 'Manovigyan Shodh Vidhiya' Vinod Pustak Mandir Agra. 1977.
- [7] L.R. Yagnik, B.D. Dhila and K. B. Chothani: 'Sanshodhan Paddhatio' (Vartanik Vignanoma) Akshar Publication Ahmedabad. 2004.
- [8] Arvind Shah: 'Manovigyanni Sanshodhan Paddhatio' Divine Publication Ahmedabad. 2006.
- [9] D. A. Uchatt: Shikshan ane Samajik Vignanoma Sanshodhannu Padhatishashtra, Paras Pakashan Rajkot. 2012.

