

**Anekant Education Society**  
**Tuljaram Chaturchand College of Arts, Science and Commerce,**  
**Baramati**

Autonomous

Course Structure for M.A. Psychology (2022 Pattern)

(w. e. from June, 2022)

Program Name:	M.A. Psychology
Program Code:	PAPS
Class:	M.A. Part - I
Semester:	II

### **Preamble**

Master's Degree in psychology has been of great demand in the recent years. The need for psychological assistance and guidance has been recognized by all the sections of the society and there is a need of professionals in the field. Application of psychological principles to solve human problems has acquired new dimension with the changing nature of the challenges that the world faces today. Keeping this in mind the present curricula has been framed to provide theoretical as well as practical training in a wide range of specializations that would help the post graduate to be eligible to be employed in the various fields. The course has been redesigned with emphasis not only on the syllabi but also on co-curricular activities such as book reviews/seminars/ presentations/assignments that would be out of the syllabi and constitute a part of the internal assessment. This course provides broad training to the student toward marketing psychology knowledge and become professional psychologist or trainer. It would facilitate acquiring specialized knowledge, inculcating relevant attitude, values and a sense of empowerment. It recognizes multiplicity in ways and means of knowledge-creation and applications. The course will enable the learners to assume the role of the psychologists for the better development of individuals and society with a positive attitude.

<b>Semester</b>	<b>Paper Code</b>	<b>Title of Paper</b>	<b>No. of Credits</b>
II	PAPS 121	Learning and Memory	04
	PAPS 122	Psychological Testing: Applications	04
	PAPS 123	Research Methodology	04
	PAPS 124	Psychology Practical: Experiments	04

**Class:** M.A.-I (Semester –II)  
**Course Code:** PAPS121  
**Credit:** 04

**Title of the Course:** Learning and Memory  
**No. of Lectures:** 40

**A) Course Objectives:**

1. To acquaints the students with the process of learning and memory.
2. To develop insights of neurological basis of learning and memory.
3. Application of principle of learning and memory.
4. To introduce students to basic theories and models of learning and memory.
5. To explore the neurological and cognitive mechanisms underlying learning and memory.
6. To promote critical thinking and analysis of research in learning and memory
7. To improve memory and enhancing practical skills in learning strategies

**B) Course Outcomes:**

- CO1. Students will be able to define and describe the basic processes of learning and memory, including encoding, storage and retrieval.
- CO2. Students will demonstrate an understanding of neural structures and processes involved in learning and memory, including the role of neurotransmitters and brain regions.
- CO3. Students will be able to apply the principles of learning and memory to real-world situations, demonstrating an understanding of how these principles influence behaviour, learning, and everyday life.
- CO4. Students will be able to explain key theories and models in the field of learning and memory.
- CO5. Students will develop an understanding of the neural processes and cognitive mechanisms involved in synaptic plasticity.
- CO 6. Students will develop critical thinking skills by evaluating and synthesizing research studies in the fields of learning and memory.
- CO 7 Students will analyze their own memory and learning abilities.

**UNIT-1PROCESS OF LEARNING**

**(10)**

- 1.1Classical conditioning: concepts, types and principles
- 1.2 Operant conditioning concepts, reinforcement: types and schedules
- 1.3Cognitive approaches to learning: Tolman theory& Bandura observational theory
- 1.4 Cultural influence on learning

## 1.5 Application: Phases of Skill Acquisition

### UNIT-2 PROCESS OF MEMORY

(10)

- 2.1 Sensory Memory: Iconic and Echoic
- 2.2 Short term Memory: Research and Experiments
- 2.3 Long term memory and Everyday Memory
- 2.4 Useful steps to improving your memory
- 2.5 Application: Techniques use in Cognitive Interview

### UNIT-3 MODELS AND THEORIES OF MEMORY

(10)

- 3.1 Unitary and Dual theory of Waugh & Norman
- 3.2 Multi process Models: Atkinson & Shiffrin; Craik & Lockhart
- 3.3 Connectionist Model: Rumelhart & McClelland
- 3.4 Theories of Forgetting
- 3.5 Application: How psychologists study memory

### UNIT-4 NEUROLOGICAL BASIS OF LEARNING AND MEMORY

(10)

- 4.1 Brain areas associated with learning and memory
- 4.2 Amnesia: Definition and types
- 4.3 Brain: studies on learning and Memory
- 4.4 Synaptic Mechanism: Synaptic Plasticity in Learning and memory
- 4.5 Application: Neuro-linguistic Programming

### Reference Books

1. Matlin, M. (1994). *Cognition*. Bangalore: Harcourt Brace Pub.
2. Sternberg, R. J. (2007). *Cognitive Psychology*. Australia: Thomson Wadsworth.
3. Galloti, K. M. (2004). *Cognitive psychology in and out of the laboratory*. USA: Thomson Wadsworth.
4. Kellogg, R. T. (2007). *Fundamentals of Cognitive Psychology*. N.D. Sage Publications.
5. Solso, R. L. (2004). *Cognitive Psychology (6th ed.)*. Delhi: Pearson Education.
6. Carlson, N. R. (2007). *Foundations of physiological psychology*. N.D.: Pearson Edu.
7. Pinel, J.P.J. (2007). *Biopsychology*. N.D.: Pearson Edu.
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9. Kothurkar, V. K. (1985). *About learning and memory*. ND: Wiley Eastern.
10. Wade, C. and Tavris, C. (2007). *Psychology*. Pearson Education.
11. Best, J. B. (1999). *Cognitive Psychology*. USA: Wadsworth Publishing Co.
12. Kaplan, S. & Kaplan, R. (1982). *Cognition and environment*. N.Y.: Praeger Publishers.
13. Flavell, J.H. (1985). *Cognitive development*. 2nd ed. N.J.: Prentice-Hall.
14. Guenther R. K. (1998). *Human Cognition*. New Jersey: Prentice-Hall.

15. Reed S. K. (1998). *Cognition: Theory and application* (3rd ed). California: Brooks/Cole Pub Company
17. Rosenzweig, M.R., Leiman, A.L. & Breedlove, S.M. (1996). *Biological psychology*. Massachusetts: Sinauer Associates Publishers.
18. Emilien, G., Durlach, C., Antoniadis, E., Linden, M. Vd. & Maloteaux, J.M. (2004). *Memory*. NY: Psychology Press.
19. Jahnke, J.C. & Nowaczyk, R.H. (1998). *Cognition*. Upper Saddle NJ: Prentice Hall.
20. Malim, T. (1994). *Cognitive processes*. London: MacMillan.
21. Horton, D. L. and Turnage, T. W. (1976). *Human learning*. ND: Prentice-Hall
22. Desai, B. and Abhyankar, S. C. (2007). *Prayogik manasashastra and sanshodhan paddhati*. Pune: Narendra Prakashan.
23. Borude, R.R. *Bodhanik manasashastra*. Chhaya Prakashan.

### Mapping of Program Outcomes with Course Outcomes

**Class:** M.A.-I (II)

**Subject:** Learning and Memory

**Course Code:** PAPS121

**Weightage:** 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO 1	3								
CO 2	2								
CO 3								3	
CO 4	3			3					
CO 5									
CO 6					3	3			
CO 7			3						

## **Justification for the Mapping**

### **PO1: Research-related skills and scientific temper**

CO1. Students will be able to define and describe the basic processes of learning and memory, including encoding, storage and retrieval.

CO2. Students will demonstrate an understanding of neural structures and processes involved in learning and memory, including the role of neurotransmitters and brain regions.

CO4. Students will be able to explain key theories and models in the field of learning and memory.

Justification: Course Outcomes 1, 2, and 4 require students to demonstrate scientific temper in research-related activities, such as defining processes, understanding neural structures, explaining theories, and evaluating research studies.

### **PO3: Social Competence and Communication Skills**

CO7: Analyze self-memory and learning ability

Justification: Through self-analysis, students increase their understanding of their own learning and memory. This self-awareness is critical to effective communication and social competence, as it allows students to tailor their communication strategies based on their cognitive strengths and weaknesses.

### **PO4: Disciplinary Knowledge**

CO4: Students will be able to explain key theories and models in the field of learning and memory.

Justification: This course outcome directly addresses Program Outcome 4 ensuring that students acquire in-depth disciplinary knowledge in the areas of learning and memory. It involves understanding and explaining the basic theories and models that form the basis of the discipline.

### **PO5: Personal and Professional Competence**

CO6: Students will acquire practical skills in applying memory improvement techniques and effective learning strategies for optimal information retention and retrieval.

### **PO6: Self-directed and lifelong learning**

CO6: Students will develop critical thinking skills by evaluating and synthesizing research studies in the fields of learning and memory.

Justification: The emphasis on critical thinking in this course outcome aligns with Program Outcome 6, as it promotes self-directed and lifelong learning. The ability to evaluate and

synthesize research studies fosters a mindset of continuous learning and adaptation to new information.

**PO8: Critical Thinking and Problem Solving**

CO3: Students will be able to apply the principles of learning and memory to real-world situations, demonstrating an understanding of how these principles influence behaviour, learning, and everyday life.

Justification: This course outcome directly contributes to Program Outcome 8 by requiring students to apply theoretical knowledge to real-world situations. This application promotes critical thinking and problem solving skills, demonstrating the practical relevance of their learning.

**Class: M.A.I (Semester-II)**

**Subject: Psychology**

**Course Code: PAPS122**

**No.of Lectures: 40**

**Title of the Course: Psychological Testing: Applications**

**A) Course Objectives:**

To acquaint the students with:

1. Various psychological assessment techniques
2. Application of psychological tests in different fields.
3. To understand the use and interpretation of various psychological tests used in educational field.
4. To understand the use of psychological tests in clinical and organizational Settings.
5. Gain knowledge of various psychometric tests, both individual and group-based, used in educational, clinical, industrial, business, and counseling settings.
6. Apply different testing strategies to assess mental abilities, personality traits, vocational interests, and interpersonal relationships in diverse settings.
7. Critically analyze and select appropriate psychometric tools for specific contexts considering factors like reliability, validity, and cultural appropriateness.

**B) Course Outcomes:**

CO1. Developing the awareness of psychological tools.

CO2. Differentiate between the various psychometric properties of a test.

CO3. Explain the applications of psychological tests.

CO4. Develop psychological test using the knowledge obtained in the syllabus. CO5. Demonstrate proficiency in administering a variety of psychometric tests such as intelligence tests personality inventories, and entrance tests for different purposes.

CO6. Develop the ability to differentiate and employ various testing strategies and corresponding tools for clinical diagnosis, personnel selection, and counseling purposes.

CO7. Acquire skills in evaluating test results, interpreting findings, and communicating assessment outcomes effectively for decision-making in educational, clinical, industrial, business, and counseling scenarios.

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## **UNIT-I TESTING IN EDUCATIONAL SETTING**

**(10)**

1.1 General mental ability tests: Group tests – SPM (Standard Progressive Matrices-J.C.Raven), Cattell's Culture-fair Test of Intelligence

1.2 General mental ability tests: Individual tests- Binet- Kamath test, Malin's Intelligence Test for Indian Children (MISIC), Bhatia Intelligence test

1.3 Multidimensional Differential Aptitude Test-MATB (Jackson & Chaddha)

1.4 Personality and interest inventories- CPR-Career Preference Record (Bhargava), Strong-Campbell Interest Inventory (SCII)

1.5 School and college entrance tests- SAT (Scholastic Assessment Test), GRE (Graduate Record Examination Test)

## **UNIT-II TESTING IN CLINICAL SETTING**

**(10)**

2.1 Testing based on diagnostic and intervention- MPQ-The Medico Psychological Questionnaire (Bharatraj), DTLTD- Diagnostic Test of Learning Disability (Swarup, Mehta)

2.2 Tests based on the Criterion-Group Strategy, MMPI-Minnesota Multiphasic Personality Inventory (S. R. Hathaway & J. C. Mckinley), California Psychological Inventory

2.3 Tests based on the Factor-Analytic Strategy- 16 PF- Personality Factor Test (Cattell), NEO-PI R- NEO Personality Inventory-Revised (McCrae & Costa) , EPQ-R Eysencks Personality Questionnaire (Eysenck)

2.4 Tests based on the Theoretical Strategy- EPPS- Edwards Personal Preference Schedule (Edward), SCRS-Self-Concept Rating Scale (Deo), Vyaktitva Shodhika (Khire & Rajguru)

2.5 Types of Projective Techniques

## **UNIT-III TESTING IN INDUSTRIAL AND BUSINESS SETTING**

**[10]**

3.1 The selection of employees- Concepts of base rates and hit rates; Taylor Russell tables; Utility theory and decision analysis; incremental validity.

3.2 Personality tests used for personnel selection- MBTI-Myers- Briggs Type Indicator

3.3 Dexterity tests - O'Conner Finger Dexterity Test, Minnesota Manual Dexterity Test,

3.4 Situational testing (games, role play) and in-basket exercises

3.5 Measuring interpersonal relationship – FIRO-B and leadership assessment.

#### **UNIT-IV TESTING IN COUNSELING SETTING**

**[10]**

4.1 General ability testing: Individual tests, and group tests (NVTI- Nonverbal Test Inventory, Passi Creativity Tests)

4.2 Multiple aptitude tests – DBDA-David Battery of Differential Abilities (Sanjay Vohra)

4.3 Strong Vocational Interest Blank (SVIB)

4.4 Anxiety and adjustment test- Sinha's Comprehensive Anxiety Test (SCAT)-A.K.P.Sinha & L.K.P Sinha, Anxiety, Depression and Stress Scale (Pallavi Bhatnaga, Bell's Adjustment Inventory, Moos' Family Environment Scale (FES)

4.5 Sack's Sentence Completion Test

#### **Reference Books**

1. Anastasi, A. & Urbina, S. (1997). Psychological testing. N.D.: Pearson Education.
2. Kaplan, R.M. & Saccuzzo, D.P. (2007). Psychological Testing: Principles, Applications, and Issues. Australia: Thomson Wadsworth.
3. Gregory, R.J. (2005). Psychological testing: History, principles and applications. New Delhi: Pearson Education.
4. Singh, A.K. (2006). Tests, Measurements and Research Methods in Behavioural Sciences. Patna: Bharati Bhavan.
5. Anastasi, A. (1988). Psychological testing. NY: Macmillan.
6. Nunnally, J.C. (1981). Psychometric theory. NY: Tata McGraw-Hill
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9. Cronbach, L. J. 5th ed. (1990). Essentials of psychological testing. New York: Harper Collins

Publishers:

10. Anastasi A. (1988). Psychological Testing. New York: McMillan

11. Murphy, K. R., Davidshofer, R. K. (1988): Psychological testing: Principles and applications. New Jersey: Prentice Hall Inc.

14. Chadha, N. K. (1996). Theory and practice of psychometry. N. D.: New Age International Ltd.

15. Kline, P. (1983). Personality measurement and theory. Hutchinson.

### Mapping of Program Outcomes with Course Outcomes

**Class:**M.A-I (Sem II)

**Subject:** Psychology

**Course::** Psychological Testing: Applications

**Course Code:** PAPS122:

**Weightage:** 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

	Programme Outcomes (POs)								
Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO 1	3								
CO 2				3					
CO 3			3						
CO 4				3					
CO 5					3				
CO 6					3				
CO 7						3			
CO 8									

### Justification for the Mapping

#### **PO1:Research-Related Skills and Scientific Temper:**

**CO1:**Students will critically evaluate assessment techniques, aligning with research-related skills and scientific temper, fostering a discerning approach in psychological practice.

**CO2:**Applying psychological tests in clinical scenarios, students will formulate diagnoses and treatment plans, integrating research-related skills, scientific temper, and ethical considerations for effective citizenship.

## **PO2:Effective Citizenship and Ethics:**

**CO1:**Demonstrating advanced comprehension, students will apply psychological test principles across diverse fields, promoting effective citizenship and ethical practices.

**CO2:**Understanding the role of CO2 in climate change is crucial for informed decision-making and responsible citizenship, aligning with ethical considerations for sustainable environmental practices.

**CO3:**Proficiency in CO3 (psychological test principles and applications) empowers students to ethically navigate diverse fields, fostering effective citizenship through informed decision-making and inclusive practices in psychological assessments.

## **PO3:Social Competence and Communication Skills:**

**CO5:**Students will showcase social competence by selecting, administering, and interpreting tests relevant to occupational settings, emphasizing effective communication skills in job performance evaluations.

**CO6:**Mastering CO6 enhances social competence by equipping students to adeptly apply group and individual mental ability tests, fostering effective communication and understanding within diverse social contexts.

## **PO4:Disciplinary Knowledge:**

**CO1:**Cultivates disciplined knowledge by guiding students to critically assess the strengths and limitations of various psychological assessment techniques, fostering a nuanced understanding for informed and effective professional practice.

**CO4:** Integrating ethical considerations and cultural competence, students will apply psychological tests, critically assessing ethical implications, validity, reliability, and cultural biases in various domains, aligning with disciplinary knowledge.

**CO5:**Instills disciplinary knowledge by enabling students to proficiently choose, administer, and interpret tests pertinent to occupational settings, ensuring a comprehensive understanding for effective decision-making in job performance evaluations.

## **PO5:Personal and professional competence**

**CO1:**Cultivates personal and professional competence by fostering critical evaluation of assessment techniques, enabling practitioners to navigate their strengths and limitations effectively in psychological practice.

**CO4:** Promotes personal and professional competence by integrating ethical and cultural considerations in psychological testing, equipping students to critically assess and address ethical implications, validity, reliability, and cultural biases across diverse domains.

**PO6: Self-directed and Life-long learning:**

**CO6:** Demonstrating comprehension and practical application, students will utilize group and individual general mental ability tests, aligning with self-directed learning and fostering lifelong learning skills.

**PO8: Critical Thinking and Problem Solving:**

**CO3:** Enhances critical thinking and problem-solving skills by equipping students with advanced comprehension of psychological test principles, enabling their adept application across diverse fields for informed decision-making.

**Class:** M.A. I (Semester – II)  
**Course Code:** PAPS 123  
**Course:** Research Methodology  
**Credit:** 04

**Subject:** Psychology

**A) Course Objectives:**

To acquaint the students with:

1. The basic research concepts,
2. Steps in research process,
3. The basic terminology of advanced research techniques so that they can follow the research reports and papers in different branches of psychology,
4. Some commonly used research designs and the APA style of preparing research Proposal and writing research report.
5. Proficiency in statistical analysis techniques commonly used in psychological research.
6. Acquire skills in selecting and employing appropriate data collection methods and measurement instruments in psychological research.
7. Apply research knowledge to address real-world problems.

**B) Course Outcomes:**

- CO1. To acquaint students with initial Research Process and use of Experimental Design.
- CO2. Students will be able to design, execute, and evaluate research studies.
- CO3. Students will critically evaluate research literature and apply critical thinking skills to the interpretation of research findings.
- CO4. Students will produce clear, concise, and well-organized scientific writing, adhering to APA style and conventions.
- CO5. Students will demonstrate competence in applying statistical techniques to analyze and interpret data relevant to psychological research.
- CO6. Apply psychological research findings to practical scenarios, demonstrating an understanding of how research contributes to addressing real-world issues.
- CO7. Demonstrate proficiency in selecting and using appropriate methods and instruments for data collection and measurement in psychological studies.

**UNIT-I OVERVIEW OF RESEARCH PROCESS AND SURVEY RESEARCH [10]**

- 1.1 Basic research concepts and Research process (problem, hypothesis, variables and operational Definitions & Ideas in Research).
- 1.2 Sampling and It's Types.
- 1.3 Methods of data collection: Observation, Interview, Questionnaires, Schedule, Survey

and Experiments.

1.4 Survey research: Its type problem and applications designs-Cross-sectional, successive independent samples, Longitudinal.

## **UNIT-II RESEARCH DESIGNS [10]**

2.1 Research Design: Meaning and its importance.

2.2 Independent Group Designs.

2.3 Repeated measures Designs.

2.4 Complex Designs.

2.5 Quasi Experimental Designs and Program Evaluations.

## **UNIT-III MULTIVARIATE AND QUALITATIVE RESEARCH DESIGNS [10]**

3.1 Factor analysis: Basic terms, overview of extraction methods Overview of rotation methods, higher order factor analysis.

3.2 Exploratory and Confirmatory factor analysis.

3.3 Other multivariate techniques: Multiple regressions, multivariate analysis of variance, discriminant functions analysis.

3.4 Qualitative research design and Analysis of Qualitative data.

## **UNIT-IV WRITING RESEARCH PROPOSAL AND REPORT [10]**

4.1 Ethical Issues in Psychological Research.

4.2 Reviewing the Research Literature to formulate hypotheses based on that.

4.3 Writing Research Proposal.(APA Style)

4.4 Research Report and Research Paper Writing. (APA Style)

4.5 Displaying Results. (Graphs, Figures, Charts, Tables)

## Reference Books:

1. Shaughnessy, J. J., Zechmeister, E. B. & Zechmeister, J. (2012). *Research methods in psychology. (9th ed.)* NY: McGraw Hill.
2. Kerlinger, F. N. (1995). *Foundations of behavioural research.* New Delhi: SurjeetPublication.
3. Robinson, P.W. (1976). *Fundamentals of experimental psychology.* Prentice-Hall.
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5. Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory (3rd ed).* NY: McGraw-Hill.
6. Hair, J.F., Anderson, R. E., Tatham, R.L., & Black, W.C. (2003). *Multivariate data analysis (5th ed).* ND: Pearson Education, Inc.
7. Locke, L.F., Sliverman, S.J. & Spirduso, W.W. (2004). *Reading and understanding research (2<sup>nd</sup> ed).* Thousand Oaks: Sage Publications.
8. Bhattacharya, D. K. (2003). *Research Methodology.* New Delhi: Excel Books.
9. Kothari, C. R. (1985). *Research methodology: Methods and techniques.* New Delhi: Wiley Eastern Ltd.
10. Elmes, D. G. (2011). *Research Methods in Psychology (9<sup>th</sup> ed.).* Wadsworth Publishing.
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12. McBurney, D. H. (2009). *Research methods. (8th Ed.).* Wadsworth Publishing.
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15. American Psychological Association. (2020). *Publication Manual of the American Psychological Association (7th Edn.).* APA.
16. Howitt, D. and Crammer, D. (2005). *Introduction to Research Methods in Psychology.* Pearson Education.
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18. Borude, R.R. (2005). *Sanshodhan Paddhatishastra.* Pune: Pune Vidyarthi Gruha
19. Desai, B. and Abhyankar, S. C. (2008). *Prayogikmanasashastra and sanshodhanpaddhati.* Pune: Narendra Prakashan.
20. Neuman W. Lawraence (2007). *Social Research Methods.* Pearson Education.



## Mapping of Program Outcomes with Course Outcomes

**Class:** M.A. I (Semester – II)

**Subject:** Psychology

**Course:** Research Methodology

**Course Code:** PAPS 123

**Weightage:** 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3			3		3		3
CO 2	3			3	3	2		2
CO 3	3	3		2				
CO 4	2	3	3	3	3	3		
CO 5	3			2	2	2		
CO 6	2		2	2	2		3	3
CO 7	3	2	2	3	3	3		

### Justification for the mapping

#### **PO1: Research-Related Skills and Scientific Temper**

CO1, CO2, CO3, CO4, CO5, CO6, CO7: The entire course revolves around introducing students to the research process, experimental design, critical evaluation of research literature, statistical techniques, and application of research findings to practical scenarios. This builds a foundation for research-related skills and scientific temper.

#### **PO2: Effective Citizenship and Ethics**

CO3, CO4, CO7: Critical evaluation of research literature involves ethical considerations. Producing scientific writing adhering to APA style contributes to effective citizenship by promoting ethical standards in research and reporting.

#### **PO3: Social competence and Communication skills**

CO4, CO6, CO7: Producing clear, concise, and well-organized scientific writing, and applying research findings to practical scenarios require effective communication skills and social competence.

#### **PO4: Disciplinary Knowledge**

CO1, CO2, CO3, CO4, CO5, CO6, and CO7: All course outcomes are directly related to building disciplinary knowledge in the field of psychological research, from understanding the research process to applying statistical techniques.

#### **PO5: Personal and Professional Competence**

CO2, CO4, CO5, CO6, CO7: Designing, executing, and evaluating research studies, producing clear scientific writing, applying statistical techniques, and applying research findings to practical scenarios contribute to personal and professional competence.

**PO6: Self-directed and Life-long learning**

CO1, CO2, CO4, CO5, CO7: Learning the initial research process, designing and executing research studies, critically evaluating literature, and applying statistical techniques all involve self-directed learning. These skills are applicable throughout one's career, supporting life-long learning.

**PO7: Environment and Sustainability**

CO6: Applying psychological research findings to practical scenarios can contribute to addressing real-world issues, including those related to environment and sustainability.

**PO8: Critical Thinking and Problem Solving**

CO1, CO2, CO6: The entire course involves critical thinking skills, from understanding the research process to designing and evaluating studies, critically evaluating literature, and applying statistical techniques.

**Class:** M.A.-I (Semester –II)  
**Course Code:** PAPS124  
**Credit:** 04

**Title of the Course:** Psychology Practical: Experiments  
**No. of Lectures:** 40

**A) Course Objectives:**

1. Understand and apply basic research methods in psychology.
2. Gain proficiency in designing and conducting psychological experiments.
3. Develop the ability to analyze and synthesize psychological literature.
4. Demonstrate awareness of potential ethical issues related to experimental design and participant treatment.
5. Develop critical thinking skills by evaluating and interpreting experimental results.
6. Understand and adhere to ethical guidelines in psychological research.
7. Interpret statistical results to draw meaningful conclusions from research findings.

**B) Course Outcomes:**

- CO1. Students will be able to design and implement a psychological experiment, including formulating research questions and hypotheses.
- CO2. Students will collect record and analyze data using appropriate statistical techniques.
- CO3. Students will critically evaluate existing psychological research and literature in order to interpret their own experimental designs and results.
- CO4. Students will demonstrate an understanding of ethical considerations in experiments, including obtaining informed consent, protecting participant privacy.
- CO5. Students will develop problem-solving skills by addressing challenges encountered during the research process and suggesting possible solutions.
- CO6. Students will be able to critically analyze information from a variety of psychological sources, demonstrating an understanding of key theories and findings in the field.
- CO7. Understand the process of conducting rigorous scientific laboratory experiments.
- CO8. Develop the ability to design a new experiment based on psychological theory.
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**UNIT-1 COGNITIVE PROCESSES (ANY 3):**

1. Signal Detection - ROC
2. Perceptual Defence
3. Concept Formation
4. Problem Solving
5. Study of Mental Imagery
6. Peterson's Test of Rational Learning
7. Stroop Effect in Visual Perception
8. Effect of feedback on Illusion
9. Time perception

**UNIT-2 LEARNING (ANY 3):**

1. Learning by Insight (Bolt Head Maze)
2. Interference: Retroactive / Proactive
3. Paired Associate Learning
4. Serial Learning
5. Verbal Conditioning
6. Transfer of training in maze learning (Finger Maze with two Subjects)

**UNIT-3 MEMORY (ANY 2):**

1. Short Term Memory
2. Effect of Mnemonic Strategy on Memory
3. Immediate Memory Span: Meaningful Vs. Meaningless Material
4. Organization in Memory
6. Memory for Unattended Material
7. Memory for Associated and Un-associated Pairs of Words-

**UNIT-4 MOTIVATION AND EMOTION (ANY 2):**

1. Zeigarnik Effect
2. Effect of Anxiety on Performance
3. Knowledge of Result
4. Goal Setting
5. Level of Aspiration- Steadiness Tester or Tower Building

## Important Notes:

### (A) General Instructions:

1. Each batch of practical will have a maximum of 8 students.
2. If this number is exceeded by even one, a separate batch will be created.
3. The workload for each batch will be equivalent to 8 lecture periods.
4. Students must maintain a journal for this course and obtain a completion certificate from the Teacher-in-charge and attested by the H.O.D. Without this certificate, students will not be allowed to sit for internal examination and End Semester Examination (ESE) as per credit system norms.

### Conduct of practical Examination of credit system..

#### (B) Practical Assessment- (Total 4 Credits)

**1. There will be 40 marks for continuous (internal) assessment and 60 marks for end of semester examination.**

##### a) Continuous (Internal) Practical Assessment -40 Marks

After completion of five practical's there will be an internal practical examination and 40 internal marks will be divided as follows:

Items	Marks
Instructions & Conductance	10
Oral	10
Report writing of the given practical	10
Report of five practical's and punctuality	10
<b>Total</b>	<b>40</b>

##### b) End of Semester Examination (ESE) - 60 marks.

The end Semester examination of the semester will be of 60 marks and the distribution of marks will be as follows.

Items	Marks
Instructions & Conduction	10
Oral	10
Report writing of the given practical	20
Report of ten practical's and punctuality (Journal)	20
<b>Total</b>	<b>60</b>

The program of the End Semester Examination will be prepared by Head of the Department.

1. Two examiners will be appointed by BOS committee, one of whom will be preferably internal examiner.

2. If no teacher from the department is eligible as internal examiner, then both examiners will be out of the given department; one will work as internal examiner and one as external examiner.
3. The duration of the final semester examination will be 4 hours per batch.
4. Each batch of practical test will have maximum 8 students.
5. Internal and external examiners will jointly set the question paper.
6. Each question paper will have three subsets namely A, B, C.
7. The question paper will contain practical based problems taken at respective centers. In case of scoring by internal as well as external examiners, the average
8. It will be calculated as the final marks of the students under the given heading.

### **(C) Remuneration of examiners for last semester examination**

1. Each question paper will have three subsets ie A, B, C (three subsets together will be treated as one question paper for billing purposes).
2. The remuneration shall be divided equally between the two examiners

### **Reference Books**

1. Rajamanickam, M. (2005). *Experimental Psychology: with Advanced Experiments*, Volume 1 & 2. New Delhi: Concept Publishing Company.
2. Mohsin, S. M. (1975). *Experiments in psychology*. Orient Longman.
3. Parameshwaran, E. G. & Rao, B. T. (1968). *Manual of experimental psychology*. Bombay: Lalvani Publishing House.
4. Tinker, M.A. & Russell, W.A. *Introduction to methods in experimental psychology*. Appleton – Century Crofts.
5. Jalota, S. (1962). *Experiments in psychology*. Asia Publishing House.
6. Galloti, K. M. (2004). *Cognitive psychology in and out of the laboratory*. USA: Thomson Wadsworth.
7. Sternberg, R.J. (1996). *Cognitive psychology*. NY: Harcourt Brace College Publishers.
8. Guenther, R.K.(1998). *Human cognition*. NJ: Prentice-Hall.
9. Baker, L.M., Weisiger, C. & Taylor, M.W. (1960). *Laboratory experiments in general psychology*. Oxford Univ. Press.
10. Berkowitz, L. (1974). *Advanced experimental social psychology*. Academic Press.
11. Debold, R.C. (1968). *Manual of contemporary experiments in psychology*. Prentice-Hall.
12. Fergusson, E. D. (1976). *Motivation: An experimental approach*. Holt Rinehart & Winston.
13. Friedenber, J., Silverman, G. (2006). *Cognitive science: An introduction to the study*

## Mapping of Program Outcomes with Course Outcomes

**Class:** M.A.-I (SEM-II)

**Subject:** Psychology Practical: Experiments

**Course Code:** PAPS124

**Weightage:** 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Course Outcomes	Programme Outcomes (POs)								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO 1	3								
CO 2	3								
CO 3	3					3			
CO 4		3							
CO 5					2				
CO 6			3						
CO 7				3					
CO 8				2					

### Justification for the mapping

#### PO1: Research-related skills and scientific temperament

CO1: Students will be able to design and implement a psychological experiment, including formulating research questions and hypotheses.

CO2: Students will collect record and analyze data using appropriate statistical techniques.

CO3: Students will critically evaluate existing psychological research and literature in order to interpret their own experimental designs and results.

Justification: The outcomes of this course directly contribute to the development of research-related skills and to the enhancement of scientific temperament by engaging students in the process of designing, conducting, and analyzing psychological experiments.

#### PO2: Effective Citizenship and Ethics

CO4: Students will demonstrate an understanding of ethical considerations in experiments, including obtaining informed consent, protecting participant privacy.

Justification The outcome of this course is to ensure that students are equipped with ethical thinking, promote effective citizenship in research, and adhere to ethical standards in psychological experiments.

### **PO3: Social Competence and Communication Skills**

CO6: Students will be able to critically analyze information from a variety of psychological sources, demonstrating an understanding of key theories and findings in the field.

Justification: This course outcome emphasizes the development of communication skills by requiring students to critically analyze and present information from a variety of psychological sources while enhancing social competence.

### **PO4: Disciplinary Knowledge**

CO7: Understand the process of conducting rigorous scientific laboratory experiments.

CO8: Develop the ability to design a new experiment based on psychological theory.

Justification: These results are directly aligned with increasing disciplinary knowledge by immersing students in the process of conducting rigorous experiments and enabling them to design experiments based on psychological theories.

### **PO5: Personal and Professional Competence**

CO5: Students will develop problem-solving skills by addressing challenges encountered during the research process and suggesting possible solutions.

Justification: This outcome focuses on the development of problem-solving skills, which are important for personal and professional competence, especially in the dynamic field of psychological research.

### **PO6: Self-directed and lifelong learning**

CO3: Students will critically evaluate existing psychological research and literature to interpret their own experimental designs and results.

Justification: The need to critically evaluate existing research and literature encourages self-directed learning and the cultivation of a lifelong learning mindset.

### **PO8: Critical Thinking and Problem Solving**

CO5: Students will develop problem-solving skills by addressing challenges encountered during the research process and suggesting possible solutions.

CO8: Develop the ability to design a new experiment based on psychological theory.

Justification: Both of these outcomes contribute to the development of critical thinking and problem-solving skills, aligned with broader program outcomes.