# Anekant Education Society's Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati

# Autonomous Course Structure for M.A. I Psychology Academic Year 2019-20

Semester	Paper Code	Title of Paper No. of			
	PSY 4201	Learning and Memory	04		
II	PSY 4202	Psychological Testing: Applications	04		
	PSY 4203	Statistical Methods	04		
	PSY 4204	Psychology Practical: Experiments	04		

# Syllabus (CBCS) For M.A. Psychology (w.e.f. June 2019) Academic Year 2019-20

Class: M.A.-I (Semester –II) Subject: Psychology

Course Code: PSY 4201 Title of the Course: Learning and Memory

Credit: 04 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.

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

CO7.Students will acquire practical skills in applying memory improvement techniques and effective learning strategies for optimal information retention and retrieval.

#### **UNIT-1 PROCESS OF LEARNING**

**(10)** 

- 1.1 Classical conditioning: concepts, types and principles
- 1.2 Operant conditioning concepts, reinforcement: types and schedules
- 1.3 Cognitive approaches to learning: Latent and observational learning
- 1.4 Cultural influence on learning
- 1.5 Application: Principles of learning to Get Fit and Stay Fit

#### **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 Long Term Memory: Types, Unusual form of Memory: Eyewitness Memory, Flashbulb memory, autobiographical 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-4NEUROLOGICAL 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.

- 8. Horn, G. (1985). Memory imprinting and the brain. Oxford: Clarendon Press.
- 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: Psychology

Course Code: PSY4201 Title of the Course: Learning & Memory 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	
CO1	3									
CO2	3									
CO3			3					3		
CO4	3			3						
CO5										
CO6					3	3			·	
CO7										

#### **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, and4 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**

Justification: Course Outcome 3 emphasizes the application of principles of learning and memory in real-world situations and their impact on behaviour and daily life, enhancing social competence. Communication skills are also enhanced through presentations and discussions regarding course outcomes.

### **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)

Course Code: PSY 4202

Subject: Psychology
No. Of Lectures: 40

Title of the Course: Psychological Testing: Applications

#### A) Course Objectives:

#### To acquaint the students with:

- 1. To introduce students to various psychological assessment techniques
- 2. Application of psychological tests in different fields.
- 3. To illustrate the application of psychological tests across different fields such as education, industry, clinical, and development.
- 4. Illustrate the diverse applications of psychological tests across different domains such as education, industry, clinical psychology, counseling, organizational.
- 5. To evaluate the role of psychological tests in personnel selection, employee assessment, and workplace dynamics.
- 6. To introduce and explain various group and individual tests of general mental ability.
- 7. To explore testing strategies based on diagnostic and intervention in clinical settings.

#### **B)** Course Outcomes:

- CO1 Students will critically evaluate the strengths and limitations of different assessment techniques in psychological practice.
- CO2.Students will apply psychological tests in clinical scenarios to formulate appropriate diagnoses and treatment plans for individuals with psychological disorders.
- CO3.Students will demonstrate an advanced comprehension of the principles and practical application of psychological tests across diverse fields.
- CO4.Students will integrate ethical considerations and cultural competence when applying psychological tests across different domains, showcasing the ability to critically assess the ethical implications, validity, reliability, and cultural biases of tests used in various fields.
- CO5.Students will demonstrate the ability to select, administer, and interpret tests relevant to occupational settings, including job performance evaluations.
- CO6.Demonstrate comprehension and practical application of group and individual general mental ability tests.

CO7. Analyze and compare various testing strategies used in clinical settings based on different criteria and theoretical approaches.

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#### CREDIT-I TESTING IN EDUCATIONAL SETTING

[10]

- 1.1 General mental ability tests: Group tests SPM, Cattell's Culture-fair Test of Intelligence
- 1.2 General mental ability tests: Individual tests- Binet Kamath test, Malin's Intelligence Bhatiya Intelligence test
- 1.3 Multidimensional Differential Aptitude Test (MATB Jackson&Chaddha)
- 1.4 Personality and Interest Inventories- CPR (Bhargava) Interest Inventory (M.N. Palsane)
- 1.5 School and college Entrance tests- SAT, GRE

#### CREDIT-II TESTING IN CLINICAL SETTING

[10]

- 2.1 Testing based on diagnostic and intervention- (MPQBharatraj) (DTLD Swarup, Mehta)
- 2.2 Tests based on the Criterion-Group Strategy- MMPI, California Psychological Inventory
- 2.3 Tests based on the Factor-Analytic Strategy- 16 PF, NEO-PI R, EPQ-R
- 2.4Tests based on the Theoretical Strategy- EPPS, self concept( SCLW Deo) Vyaktitva Shodhika(Khire& Rajguru)
- 2.5 Projective and neuropsychological testing

#### CREDIT-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
- 3.3 Dexterity tests O'Conner Finger Dexterity Test, Bennett Hand-Tool DexterityTest, Minnesota Manual Dexterity Test, Mechanical Reasoning Test
- 3.4 Situational testing (games, role play) and in-basket exercises
- 3.5 Measuring interpersonal relationship FIRO-B and leadership assessment.

#### CREDIT-IV TESTING IN COUNSELING SETTING [10]

- 4.1General ability testing: Individual tests, and group tests (SPM, NVTI, Passi CreativityTests)
- 4.2 Multiple aptitude tests DAT, DBDA (Sanjay Vohra)
- 4.3 Strong Vocational Interest Blank (SVIB)
- 4.4 Anxiety and adjustment test- STAI, IPAT (Krug& Cattell), 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
- 7. Ghiselli, E.E. and Campbell, J.P., Zedek, S. (1981). Measurement theory for the behavioral sciences. W.H. Freeman.
- 8. Freeman, F.S. 3rd ed. (1965). Psychological testing. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
- 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.
- 12. Aiken L.R. (1996) Rating Scales and Checklists: Evaluating Behavior, Personality and Attitudes.
- 13. Ghiselli, E. E., Campbell, J. P. & Zedek, S. (1981). Measurement theory for the behavioural sciences. W.H. Freeman.
- 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)

Course: Psychological Testing: Applications

Subject: Psychology

Course Code: PSY-4202

No. of Lectures: 40

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	3		3	3					
CO 2	3	3								
CO 3		3						3		
CO 4				2	3					
CO 5			3	3						
CO 6			3			3				
CO 7										

#### 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) Subject: Psychology

Course Code: PSY4203 Course: Research Methodology

Credit: 04

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.

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

- 1.1 Basic research concepts (problem, hypothesis, variables and operational Definitions & Ideas in Research)
- 1.2 Sampling and It's Types
- 1.3 Methods of data collection: Observation, mail surveys (questionnaires), personal

Interviews, telephone interviews, and internet surveys

1.4 Survey research: Its type problem and applications designs- Cross-sectional, successive

# UNIT-II EXPERIMENTAL AND QUASI DESIGNS

- 2.1 Experimental Designs: Definition, principles and functions
- 2.2 Independent Group Designs
- 2.3 Repeated measures Designs
- 2.4 Complex Designs
- 2.5 Quasi Experimental Designs and Program Evaluations

#### UNIT-III OTHER MULTIVARIATE DESIGNS AND QUALITATIVE RESEARCH [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, canonical correlations, and path analysis and structural equation.

- 3.4 Qualitative research design
- 3.5 Analysis of Qualitative data

#### UNIT-IV WRITING RESEARCH PROPOSAL AND REPORT

[10]

- 4.1 Ethical Issues in Psychological Research
- 4.2 Collecting and Review of Literature
- 4.3 Research Proposal and Report Writing (APA Styles)
- 4.4 Displaying Results (Graphs, Figures, Charts, Tables)

[10]

#### **Reference Books:**

- 1. Shaughnessy J.J. and Zechmeister E.B. (1997). Research Methods in Psychology (4th ed)
- 2. Kerlinger F.N. (1994). Foundations of behavioral research (3rd ed)
- 3. Zechmeister J.S., Zechmeister E.B. & Shaughnessy J.J. (2001). Essentials of research methods in psychology.
- 4. Robinson, P.W. (1976). Fundamentals of experimental psychology. Prentice-Hall.
- 5. Edwards, A.L. (1969). Techniques of attitude scale construction. Vakil, Feffer & Simons.
- 6. Edwards, A.L. (1985). Experimental designs in psychological research. Harper & Row.
- 7. Broota, K.D. (1989). Experimental design in behavioural research. Wiley Eastern.
- 8. Singh A.K. (2006). 5th ed. *Tests, Measurement and Research Methods in Behavioural Sciences.* Patna: Bharati Bhavan.
- 9. Christensen. Experimental methodology.
- 10. Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory (3rd ed.* NY: McGraw-Hill.
- 11. Hair, J.F., Anderson, R. E., Tatham, R.L., & Black, W.C. (2003). *Multivariate data analysis* (5th ed).ND: Pearson Education, Inc.
- 12. Smith, R.A., & Davis, S.F. (1997). *The psychologist as detective: An introduction to conducting research in psychology*. Upper Saddle River NJ: Prentice-Hall.
- 13. Locke, L.F., Sliverman, S.J. &Spirduso, W.W. (2004). *Reading and understanding research* (2<sup>nd</sup>Edn.). Thousand Oaks: Sage Publications.
- 14. Bhattacharya, D. K. (2003). Research Methodology. New Delhi: Excel Books.
- 15. Mason E.J. and Bramble W.J. (1989). *Understanding and conducting research: Applications in education and behavioral sciences* (2nd ed)
- 16. Goode, W.J. & Hatt, P.K. (1952). Methods in social research.
- 17. Tabachnick B.G. and Fidell L.J. (2001). *Using Multivariable statistics* (4th ed)
- 18. Gursuch R.L. (1983). Factor analysis (2nd ed)
- 19. Kothari, C. R. (1985). Research methodology: Methods and techniques. New Delhi: Wiley Eastern Ltd.
- 20. Howitt, D. and Crammer, D. (2005). *Introduction to Research Methods in Psychology*. Pearson Education.
- 21. Ranjit Kumar (2006). *Research methodology: A step-by-step guide for beginners*. N.D.: Pearson Education.
- 22. Rosnow, R.L. & Rosenthal, R. (1999). *Beginning behavioral research: A conceptual primer* (3rd ed). Upper Saddle River NJ: Prentice-Hall
- 23. Borude, R.R. (2005). Sanshodhan Paddhatishastra. Pune: Pune Vidyarthi Gruha
- 24. Desai, B. and Abhyankar, S. C. (2008). *Prayogikmanasashastra and sanshodhanpaddhati*. Pune: Narendra Prakashan.
- 25. Neuman W. Lawraence (2007) Social Research Methods, Pearson Education.
- 26. Richards Lyn and Morcse Janice M. (2013) *README FIRST FOR A USER'S GUIDE TO Qualitative methods*, Third Edition, Sage Publication

#### **Mapping of Program Outcomes with Course Outcomes**

Class: M.A. I (Semester – II)

Course: Research Methodology

Course Code: PSY4203

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			
CO 1	3										
CO 2				3							
CO 3		3				3		3			
CO 4			3								
CO 5		3									
CO 6					3						
CO 7							3				

#### **Justification for the mapping**

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

CO1:This course outcome aligns with the program outcome by introducing students to the fundamental aspects of the research process, including understanding experimental design, which is crucial for developing research-related skills and fostering a scientific temper.

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

CO3:Evaluating research literature and applying critical thinking skills not only enhances students' understanding of research findings but also promotes ethical considerations in the interpretation and application of research, aligning with the program's focus on effective citizenship and ethics.

CO5: Competence in statistical techniques involves ethical considerations, aligning with the broader goal of effective citizenship and ethics.

#### PO3: Social competence and Communication skills

CO4:Clear and concise scientific writing is essential for effective communication. This course outcome aligns with the program outcome by emphasizing the development of communication skills necessary for social competence in the field of psychology.

#### PO4: Disciplinary Knowledge

CO2:Designing, executing, and evaluating research studies contribute directly to the development of disciplinary knowledge in psychology. This outcome ensures that students acquire a deep understanding of the research process within the discipline.

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

CO6:Applying research findings to practical scenarios promotes personal and professional competence by demonstrating the real-world applicability of psychological research and its contributions to addressing societal issues.

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

CO3:Critical evaluation and critical thinking skills contribute to self-directed and life-long learning by fostering a habit of questioning and continuous improvement.

#### **PO7: Environment and Sustainability**

CO7:Proficiency in selecting appropriate methods and instruments aligns with environmental and sustainability aspects by considering ethical and sustainable practices in research.

# PO8: Critical Thinking and Problem Solving

CO3:Critical thinking and problem-solving skills are directly addressed through the critical evaluation of research literature and the application of critical thinking skills.

Class: M.A.-I (Semester –II) Course Code: PSY 4204

Credit: 04 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.

**Title of the Course:** Psychology Practical: Experiments

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. Students will develop skills in designing and conducting experiments, including formulating research questions, selecting appropriate methods, and implementing experimental procedures.

#### **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
Total	40

#### 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
Total	60

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

#### **Mapping of Program Outcomes with Course Outcomes**

Class: M.A.-I (SEM-II) Subject: Psychology Practical: Experiments

Course Code: PSY 4204

**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									
CO 4		3							
CO 5								3	
CO 6							_		
CO 7									

#### Justification for the mapping

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

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

Justification: This course outcome directly addresses the program outcome by equipping students with the ability to plan, and execute psychological experiments. Designing and conducting experiments contributes to the development of strong research-related skills and scientific temperament.

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

Justification: Data collection and statistical analysis are integral parts of the research process. The outcome of this course ensures that students not only perform experiments but also acquire the necessary skills to handle and analyze collected data, strengthening their research-related skills.

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

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

Justification: This course outcome aligns with the program outcome by emphasizing the importance of ethical conduct in research. It ensures that students understand and adhere to ethical principles, promoting effective citizenship in the academic and research community.

#### PO4: Disciplinary Knowledge

CO7: Students will develop skills in designing and conducting experiments, including formulating research questions, selecting appropriate methods, and implementing experimental procedures.

Justification: This course outcome directly aligns with the program outcome by focusing on the development of disciplinary knowledge. It ensures that students acquire the skills necessary to contribute to the field of psychology through the design and implementation of experiments.

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

CO8: Students will develop self-directed and lifelong learning skills.

Justification: Self-directed learning is fundamental to personal and professional competence. The outcome of this course ensures that students are equipped with the skills to continue learning and adapt throughout their careers, contributing to their personal and professional growth.

# 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.

Justification: Critical thinking and problem solving are central to the outcome of this course. Students develop the ability to think critically and solve problems effectively by facing the challenges of the research process.