SYLLABUS UNDER AUTONOMY

M.A.-I - PSYCHOLOGY
SEMESTER – I

Academic Year 2016-2017
### Deccan Education Society’s
Fergusson College (Autonomous), Pune
Faculty of Arts
Post Graduate Syllabus (Psychology)

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SEMESTER I
PSY4101: COGNITIVE PROCESSES

OBJECTIVES:
1. To acquaint the students with the processes involved in sensation and perception
2. To develop insight into one’s own and others’ behaviour and underlying mental processes,
3. To enrich students’ understanding of major concepts, theoretical perspectives, and empirical findings in cognitive psychology

1. NATURE AND IMPORTANCE OF COGNITIVE PSYCHOLOGY [12]
   1. Cognitive Psychology: History, definition and domains
   2. Methods of Cognitive psychology and Neuropsychology
   3. Theories of cognitive development – Piaget, Vygotsky
   4. Current paradigms of cognitive psychology – Information processing approach, ecological approach
   5. Application: Cognitive style and cognitive map

2. SENSATION, ATTENTION AND PERCEPTION [12]
   1. Sensation – Sense organs and sensation
   2. Attention: (a) Functions of attention: Divided attention, selective attention (b) Theories of attention process (c) Signal Detection Theory and vigilance.
   3. Perception-approaches: Gestalt, Bottom-Up (feature analysis, template matching, prototypes), Top-Down and Pandemonium
   4. Perception: Cross-cultural studies

3. LANGUAGE AND RELATED COGNITIVE PHENOMENA [12]
   1. Understanding spoken language: Speech perception, constituent structure, transformational grammar and factors affecting comprehension
   2. Reading: Perceptual process; theories of word recognition, reading and comprehension
   3. Speaking: Selecting the content of speech, speech errors, gestures, social context of speech
   4. Writing: Comparing speaking and writing, cognitive tasks involved in writing
   5. Application: Development of Listening Skills, Multilingualism.

4. PROBLEM SOLVING, CREATIVITY AND DECISION MAKING [12]
   1. Problem: Definition, problem solving cycle, types, obstacles and aids
   2. Problem solving approaches – Algorithm; heuristics: means-end analysis computer simulation, and analogy
   3. Definition of creativity, measurement creativity
   4. Reasoning and decision-making: Types of reasoning – Syllogistic and Conditional; factors influencing decision-making.
   5. Application: Artificial intelligence and Behavioral economics

RECOMMENDED BOOKS FOR READING:

SEMESTER I
PSY4102: PSYCHOMETRY: THEORY

OBJECTIVES:
1. To acquaint them with the characteristics of standardized tests.
2. To familiarize the students with psychometric theory and principles of test construction.

1. NATURE AND SCOPE OF PSYCHOLOGICAL TESTING [12]
   1. Definition and characteristics of psychological tests
   2. Classification and uses of psychological tests
   3. General steps in test construction
   4. Item analysis
   5. Factors influencing test performance- Examiner, situational variables and Test-takers perspective

2. RELIABILITY [12]
   1. Correlation coefficient: Meaning, statistical significance, reliability coefficient
   2. Definition and types of reliability
   3. Reliability of speeded tests
   4. Dependence of reliability on the sample tested
   5. Using reliability information

3. VALIDITY [12]
   1. Validity: Definition and evolving concepts
   2. Content-description validation procedures
   3. Criterion-prediction procedures
   4. Construct-identification procedures
   5. Test validity and decision theory

4. NORMS AND THE MEANING OF TEST SCORES [12]
   1. Developmental norms
   2. Within-group norms- Percentiles, standard scores, the Deviation IQ
   3. Relativity of norms
   4. Issues in scoring
   5. Issues in test administration: Ethics, bias, cultural fairness

RECOMMENDED BOOKS FOR READING:

SEMESTER I
PSY4103: STATISTICAL METHODS

OBJECTIVES: -
1. To acquaint the students and make them understand the different statistical methods with their uses and interpretations,
2. To develop computational skills in students,
3. To enable them to analyze the data of practical and project work.

1. OVERVIEW OF DESCRIPTIVE STATISTICS AND PROBABILITY [12]
   1. Overview of measures of Central tendency, variability, curves and graphs
   2. Percentiles, percentile ranks and standard scores
   3. Probability: Concept, definition, and approaches
   4. Characteristics of normal distribution curve
   5. Applications of normal distribution curve.

2. CORRELATION AND REGRESSION [12]
   1. Concept and meaning of correlation
   2. Pearson’s Product-Moment Correlation
   3. Point – Biserial Correlation and Phi-coefficient
   4. Bi-serial and tetra choric correlation
   5. Partial and Multiple Correlation
   6. Simple Linear Regression: Concept and uses

3. INFERENTIAL STATISTICS [12]
   1. Inferences: Standard error of mean and other statistics
   2. Significance of difference for means, variances and correlation coefficients.
   3. Assumptions of Analysis of Variance, and One-way ANOVA- Independent, concept of repeated measures
   4. Two-way ANOVA - Independent, concept of repeated measures
   5. Analysis of Covariance: Concept.

4. NON-PARAMETRIC STATISTICS [12]
   1. Difference between Parametric and Non-parametric statistics
   2. Chi Square tests
   3. Non-parametric tests for correlated data- Rank Difference Correlation, Sign Test, Wilcoxon Signed Rank test
   4. Non-parametric tests for uncorrelated data - Mann-Whitney U-test and Kruskal-Wallis Test
   5. Statistical software: An introduction – SPSS, Excel
NOTE-

1. Students can use non-scientific calculator during examination.
2. Calculation exercises in the question paper shall be restricted to the following:
   1. Percentile, Percentile Ranks and Standard Scores
   2. Application of Normal Probability Curve
   3. Product Moment Correlation exercises shall be set on only grouped data with formula d. Scatter-Diagram
   4. t-test exercises shall be set on only independent sample f. One-way and Two-way ANOVA
   5. g. Chi-square Tests, exercises shall be set on only 2x2, Equal probability

RECOMMENDED BOOKS FOR READING:


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OBJECTIVES:
To acquaint the students with:

1. The administration of psychological tests, interpretation of scores and report writing,
2. The evaluation procedures and evaluation of psychological tests,
3. Certain skills of psychological counselling on the basis of psychological test results.

* Note: Only standardized tests should be used.

1. GENERAL ABILITY TESTS (any two):
   1. Intelligence tests: Verbal Test
   2. Intelligence tests: Performance Test
   3. Creativity
   4. Thinking
   5. Judgment and Reasoning

2. SPECIAL ABILITY TESTS (any two):
   1. Multiple Aptitude Test
   2. Special Aptitude Test

3. PERSONALITY TESTS (any three):
   1. Self-report inventory
   2. Projective test: Verbal
   3. Projective test: Pictorial
   4. Interest inventory
   5. Adjustment inventory
   6. Attitude / Values

4. OTHER TESTS (any three):
   1. Stress / Frustration
   2. Environmental Assessment
   3. Development Assessment
   4. Achievement Test
   5. Cognitive Style
   6. Self Concept
   7. Neuropsychological Assessment
   8. Social Skill / Behavioural Skill
RECOMMENDED BOOKS FOR READING:

16. Test manuals of respective tests.

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Deccan Education Society’s
FERGUSSON COLLEGE, PUNE
(AUTONOMOUS)

SYLLABUS UNDER AUTONOMY

M.A.-I - PSYCHOLOGY
SEMESTER – II

Academic Year 2016-2017
SEMESTER II
PSY4201: HUMAN LEARNING AND MEMORY

OBJECTIVES:
To acquaint the students with:
1. Various types, models and theories of learning and memory,
2. Neurological basis of learning and memory,
3. Applications of the principles of learning and memory

1. LEARNING: THEORIES AND APPLICATIONS [12]
   1. Classical Conditioning: Concepts, types and applications
   2. Operant Conditioning: Reinforcement, types, schedules of reinforcement, shaping and applications
   3. Cognitive approaches to learning: Latent learning, observational learning, and applications
   4. Cultural influences on learning
   5. Application: Conditioning and Education, Media and violence.

2. TYPES OF MEMORY [12]
   1. Sensory memory- Iconic and echoic
   2. Short Term Memory
   3. Long Term Memory: Types
   4. Determinants of memory
   5. Applications: Memory improvement techniques

3. MODELS AND THEORIES OF MEMORY [12]
   1. Unitary and dual process view: Waugh and Norman
   2. Multi-process view: Atkinson and Shiffrin; Craik and Lockhart
   3. Connectionist model: Rumelhart and McClelland
   4. Theories of forgetting: Psychoanalytical, Trace, Trace Decay, Interference, and recent trends.
   5. Application: Distortion of memory

4. NEUROLOGICAL BASIS OF LEARNING AND MEMORY [12]
   1. Brain areas associated with learning and memory
   2. Types of Amnesia- Amnesia after concussion (Anterograde, Retrograde), Korsakoff, Alzheimer’s disease
   3. Studies on role of brain in learning and conditioning
   4. Synaptic mechanisms and synaptic plasticity of learning and memory
   5. Application: Neuro-linguistic programming
RECOMMENDED BOOKS FOR READING:

OBJECTIVES:
To acquaint the students with:
1. Various psychological assessment techniques
2. Application of psychological tests in different fields.

1. TESTING IN EDUCATIONAL SETTING [12]
   1. General mental ability tests: Group tests –SPM, Cattell’s Culture-fair Test of Intelligence
   2. General mental ability tests: Individual tests- Binet - Kamath test, WISC, WAIS,
   3. Malin’s Intelligence Scale for Indian Children (MISIC)
   4. Differential Aptitude Test (DAT)
   5. Personality inventories- 16 PF, NEO-PI R, EPQ-R

2. TESTING IN CLINICAL SETTING [12]
   1. MMPI
   2. Tests for children with special needs : Autism, Learning Disability
   3. Projective Techniques
   4. Interpretation of Projective techniques
   5. Neuropsychological testing

3. TESTING IN INDUSTRIAL AND BUSINESS SETTING [12]
   1. Personality tests used for personnel selection- MBTI
   3. Situational testing (games, role play) and in-basket exercises
   4. Measuring interpersonal relationship – FIRO-B
   5. Leadership assessment.

4. TESTING IN COUNSELING SETTING [12]
   1. Assessment of self, SWOT analysis
   2. Irrational beliefs scale
   3. STAXI
   4. Assessment of stress
   5. Tests for children with special needs
BOOKS FOR READING-


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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.

1. OVERVIEW OF RESEARCH PROCESS AND SURVEY RESEARCH [12]
   1. Overview of basic research concepts (problem, hypothesis, variables and operational definitions), APA style of preparing research proposal’ writing research report
   1. Sampling techniques
   2. Methods of data collection: Observation, mail surveys (questionnaires), personal interviews, telephone interviews, and internet surveys
   3. Survey research designs- Cross-sectional, successive independent samples, longitudinal
   4. Problems, issues, and applications of survey research

2. EXPERIMENTAL DESIGNS [12]
   1. Experimental designs: Definition, principles and functions
   2. Within-group design: Complete and Incomplete.
   3. Between-group design: Randomized, Matched and factorial
   4. Factorial designs: Simple factorial designs, factorial designs with covariate, randomized block factorial designs
   5. Conceptual distinction among between group designs, repeated measures designs, and mixed designs.

3. QUASI-EXPERIMENTAL DESIGNS [12]
   1. Characteristics and types of quasi-experimental designs: Single-group designs, pre test-post test designs
   2. Non-equivalent control group designs, Equivalent time sample design, counterbalanced design, Separate sample pre-test and post test design.
   3. Patched up design, Ex-post facto design, time series designs, cohort designs

4. OTHER MULTIVARIATE DESIGNS AND QUALITATIVE RESEARCH [12]
   1. Factor analysis: Basic terms, overview of extraction methods Overview of rotation methods, higher order factor analysis
   2. Exploratory and Confirmatory factor analysis
   3. Other multivariate techniques: Multiple regression, multivariate analysis of variance, Discriminant functions analysis, canonical correlations, and path analysis.
   4. Structural equation modelling
   5. Qualitative research design and Analysis of Qualitative data
BOOKS FOR READING-


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SEMESTER II

PSY4204: PSYCHOLOGY PRACTICAL: EXPERIMENTS

OBJECTIVES:
To acquaint the students with:
1. The different areas of experimentation in psychology,
2. Various skills of conducting experiments in psychology,
3. Applications of experimental design,

1. COGNITIVE PROCESSES (ANY 3):
   1. Signal Detection - ROC
   2. Perceptual Defense
   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

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)

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
   5. Memory for Unattended Material
   6. Memory for Associated and Un-associated Pairs of Words-

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 Blocks
Books for Reading:


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