

**ST. JOSEPH  
DEVAGIRI COLLEGE  
(AUTONOMOUS)**



**B. SC  
PSYCHOLOGY**

**SYLLABUS OF CORE,  
COMPLIMENTARY AND OPEN  
COURSES**

<b>PAPER CODE</b>	<b>PAPER NAME</b>
APSY1B01T	BASIC THEMES IN PSYCHOLOGY I
APSY2B02T	BASIC THEMES IN PSYCHOLOGY II
APSY3B03T	CHILD AND ADOLESCENT DEVELOPMENT
APSY4B04T	ADULT DEVELOPMENT
APSY4B05P	EXPERIMENTAL PSYCHOLOGY – PRACTICALS I
APSY5B06T	ABNORMAL PSYCHOLOGY I
APSY5B07T	SOCIAL PSYCHOLOGY
APSY5B08T	PSYCHOLOGICAL MEASUREMENT AND TESTING
APSY5B09T	LEARNING AND BEHAVIOUR
<b>APSY5E01T</b>	<b>ORGANISATIONAL PSYCHOLOGY</b>
APSY5E02T	EDUCATIONAL PSYCHOLOGY
APSY5E03T	PSYCHOLOGY OF CRIME
APSY5E04T	HEALTH PSYCHOLOGY
APSY6B10T	ABNORMAL PSYCHOLOGY II
APSY6B11T	APPLIED SOCIAL PSYCHOLOGY
APSY6B12T	COUNSELLING AND PSYCHOTHERAPY
APSY6B13T	COGNITIVE PSYCHOLOGY
APSY6B14T	PERSONALITY PSYCHOLOGY
APSY6B15P	EXPERIMENTAL PSYCHOLOGY- PRACTICALS II
APSY6B16P	EXPERIMENTAL PSYCHOLOGY- PRACTICALS III PSYCHOLOGICAL TESTING
APSY6B17D	PROJECT WORK

# SYLLABUS OF CORE PAPERS

## B. Sc PSYCHOLOGY

**SEMESTER: 1**

**Credit: 3**

**Code No: APSY1B01T**

### BASIC THEMES IN PSYCHOLOGY- I

#### **OBJECTIVES:**

1. To generate interest in Psychology
2. To familiarize the students with the concepts of basic Psychological processes
3. To understand the basics of various theories in Psychology
4. To provide basic knowledge about systems and processes like attention, learning and memory

#### **Module 1: Introduction**

Psychology: Definition – Historical origins- Goals - Brief descriptions on current psychological perspectives: Psychodynamic, Behaviouristic, Humanistic, Cognitive, Biological, Evolutionary, Socio cultural

#### **Module 2: Perception**

Attentional processes- Factors affecting attention- Span, Division, Distraction of Attention- Gestalt principles- Gestalt laws of perceptual organization, Gestalt approach to figure ground segregation, Modern ideas about figure ground segregation. Top down processing and object perception.- Perceptual constancies and illusions-Visual perception: Theories of colour vision, Monocular and binocular cues of depth perception.

#### **Module 3: Sleep and altered states of consciousness**

Stages of sleep, Functions of sleep, Functions of REM sleep, Hypnosis, Meditation, Drug induced state.

## **Module 4: Learning and Memory**

Learning: Definition, Behavioural and cognitive explanations, Learning curves.

Memory: Encoding, Storage, and Retrieval processes. Sensory, Short term and Long term memories. Chunking, Working memory. Levels of processing. Implicit and Explicit memory. Semantic, Episodic and Procedural memory. State dependent memory. Memory construction. Eyewitness testimony, False memory, Flashbulb memory. Measuring memory: recall, recognition, relearning. Forgetting: Theories, Curve of forgetting. Reasons of forgetting: Fading, Interference, Distortion, Repression, Amnesia. Strategies for remembering: Mnemonics, Rehearsal, Elaboration, Organization.

## **REFERENCES**

1. Baron, R.A. (2004). *Psychology*, 5<sup>th</sup> ed. New Delhi: Pearson education
2. Bootzin, R., & Bower, G.H. (1991). *Psychology today- An Introduction*. 7<sup>th</sup> ed. New York: Mc Graw Hill Inc.
3. Commer, R. & Gould, E. (2011). *Psychology around Us*. New Delhi: John Wiley & Sons Inc.
4. Coon, D. (1983). *Introduction to Psychology: Exploration and Application*. New York: West Publishing Co.
5. Feldman, R. (2011). *Understanding Psychology*, 10<sup>th</sup> edition. New Delhi: Tata McGraw Hill.
6. Gerrig, R. J & Zimbardo, P. G (2008) *Psychology and Life* (18<sup>th</sup> Edn) Boston: Pearson
7. Goldstein, E, B. (2002). *Sensation and Perception*. (6<sup>th</sup> ed.). USA: Wardsworth.
8. Kuppuswamy, B. (1990). *Elements of ancient Indian Psychology*, 3<sup>rd</sup> ed. New Delhi: Konark Publishers Pvt. Ltd.
9. Mishra, B.K. (2008). *Psychology: The study of Human Behavior*. New Delhi: Prentice Hall of India.
10. Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (1993). *Introduction to Psychology*, 7<sup>th</sup> ed. New Delhi: Tata McGraw Hill.
11. Weiten, W. (2002). *Psychology: Themes and Variations*, 5<sup>th</sup> ed. New York: Brooks/Cole Publishing co.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 2**

**Credit: 3**

**Code No: APSY2B02T**

### **BASIC THEMES IN PSYCHOLOGY- II**

#### **OBJECTIVES:**

1. To generate interest in Psychology
2. To familiarize the students with the concepts of basic Psychological processes
3. To understand the basics of various theories in Psychology
4. To provide basic knowledge about systems and processes like attention, learning and memory

#### **Module 1: Cognitive Processes**

Components of thought: Images and concepts, structure of language, language and thought  
Reasoning: deductive and inductive, Problem solving: Steps, Barriers to effective problem solving, Strategies of problem solving - Algorithms, Heuristics, Means to end analysis, Backward search, Culture, cognitive style and problem solving. Creativity: Convergent and divergent thinking. Stages in creativity. Decision making.

#### **Module 2: Motivation**

Introduction: Instinct, Drive. Primary and secondary motives. Motivation of hunger and eating, Sexual motivation. Levels of arousal, Yerkes- Dodson law. Learned motives: Affiliation, Achievement and Power motives. Cognitive theories: Balance Theory, Expectancy theory, Cognitive dissonance theory, Attribution theory.

#### **Module 3: Emotion**

Elements of emotional experience. Physiological correlates of emotion. Theories of emotion: James-Lange theory, Cannon-Bard theory, Schachter-Singer theory, Appraisal theory, Evolutionary theory, Opponent process theory, Facial feedback hypothesis. Explanation of fear and anxiety, Pessimism and depression, Guilt, shame and anger; Explanation of Happiness, optimism and hope; Assessment of emotion.

## **Module 4: Intelligence**

Definition: Binet & Weschler, Concept of intelligence, Mental age - Ratio IQ and deviation IQ, Spearman's 'g' factor, Fluid and crystallized intelligence, Determinants of intelligence: Assessment and Classification, Giftedness and levels of mental retardation.

## **Module 5: Personality**

Concept of Personality- Early approaches: Brief descriptions of ancient Indian typology (Gunas), Greek typology of Humours, Somatotypes: Kretchmer & Sheldon Approaches - Psychoanalytic, Behavioural, Trait ,Humanistic, Social learning and Cognitive theories, Assessment.

## **REFERENCES**

1. Baron, R.A., (2004). *Psychology*, 5<sup>th</sup> ed. New Delhi: Pearson education.
2. Bootzin, R., & Bower, G.H. (1991). *Psychology today- An Introduction*. 7<sup>th</sup> ed. New York: Mc Graw Hill Inc.
3. Commer, R., & Gould, E. (2011). *Psychology Around Us*. New Delhi: John Wiley & Sons Inc.
4. Coon, D. (1983). *Introduction to Psychology: Exploration and Application*. New York: West Publishing Co.
5. Feldman, R. (2011). *Understanding Psychology*, 10<sup>th</sup> edition. New Delhi: Tata McGraw Hill.
6. Franken, R. E (2007) *Human Motivation* (6<sup>th</sup> Edn). Thomson Wadsworth
7. Gerrig, R. J & Zimbardo, P. G (2008) *Psychology and Life* (18<sup>th</sup> Edn) Boston: Pearson
8. Kuppuswamy, B. (1990). *Elements of ancient Indian Psychology*, 3<sup>rd</sup> ed. New Delhi: Konark Publishers Pvt. Ltd.
9. Mishra, B.K. (2008). *Psychology: The study of Human Behavior*. New Delhi: Prentice Hall of India
10. Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (1993). *Introduction to Psychology*, 7<sup>th</sup> ed. New Delhi: Tata McGraw Hill.
11. Weiten, W. (2002). *Psychology: Themes and Variations*, 5<sup>th</sup> ed. New York: Brooks/Cole Publishing co.

## **FOR ADDITIONAL READING**

1. Lefrancois, G.R. (2000). *Theories of human learning*, 4<sup>th</sup> ed. London: Wadsworth.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 3**

**Credit: 3**

**Code No: APSY3B03T**

### **CHILD AND ADOLESCENT DEVELOPMENT**

#### **OBJECTIVES**

- 1) To study human development in Psychological Perspectives
- 2) To create awareness about major Psychological changes along with physical development

#### **Module 1: Introduction to Developmental Psychology**

Historical Foundations- Different Theories of development (Brief): Freud, Behavioristic, social, learning, Vygotsky, Periods of Development; First 5 stages of Erikson's Theory.

#### **Module 2: Prenatal Development and Birth**

Fertilization- Germinal Period, Embryonic Period, Fetal Period- Effect of long term & short term use of Teratogens- Birth Process: Types, methods- prenatal and Perinatal diagnostic tests. Birth Complication and their effects.

#### **Module 4: Motor and Cognitive Development from Infancy to Adolescence**

Newborn reflexes, Gross and fine motor skills. Perceptual development in infancy, Piagets theory of Cognitive Development: Process of development, 4 stages- Sensory Motor ,Preoperational, Concrete operational and Formal Operational stage.

Language development: Prelinguistic, Phonological, Semantic, Grammatical and Pragmatic Development.

#### **Module 5: Emotional and Moral Development**

Temperament: definition, different classifications- development of attachment: types, Bolwby's Ethological theory of attachment, Factors affecting attachment, effects- emotional behavior in infancy to adolescence – moral development- theories: Piaget, Kohlberg.

## REFERENCE

1. Berk, L.E (2003) *Child Development* (3<sup>rd</sup> ed). New Delhi: Pearson Education Pvt Ltd
2. Hurlock, E.B (1996) *Developmental Psychology-A Life span Approach*. New Delhi: Tata McGraw Hill Publishing Company
3. Papalia, D.E et.al (2004) *Human Development* (9<sup>th</sup> Ed). New Delhi: Tata McGraw Hill Publishing Company
4. Santrock, J.E (2007) *Child Development* (2<sup>nd</sup> ed) New Delhi: Tata McGraw Hill Publishing Company



## **B. Sc PSYCHOLOGY**

**SEMESTER: 4**

**Credit: 3**

**Code No: APSY4B04T**

### **ADULT DEVELOPMENT**

#### **Module 1: Physical Development**

Last 3 stages of Erikson's Theory- Physical condition and Health in early adulthood- - Physical changes and health middle & Late adulthood- Biological theories of ageing.

#### **Module 2: Cognitive Development**

Cognitive changes in early adulthood- Post formal thought, Schaie's Model of Cognitive Development, Sternberg -Cognitive Development of middle & late adulthood

#### **Module 3: Relationships in Adulthood**

Non marital, Marital Life Style & Parenthood in Young Adulthood.-Divorce – Consensual Relationships, Relationship with maturing children and other kinship ties in middle adulthood- Personal and Consensual Relationships, Non marital kinship ties in late adulthood. Facing Death and Loss: Psychological Issues, Pattern of Grieving, Special Losses

#### **Module 4: Vocational Adjustments**

Vocational Adjustment in Early adulthood- Selecting a job, Appraisal of Vocational Adjustment .Vocational Adjustment in Middle Adulthood-Changed working conditions that affect middle aged workers, conditions influencing vocational adjustment and satisfaction in middle age - vocational adjustment and adjustment to retirement in Late adulthood.

#### **REFERENCE**

1. Hurlock, Elizabeth.B(1996).*Developmental Psychology: A Life-Span Approach*.New Delhi: Tata McGraw Hill Publishing Company.
2. Papalia, Diane.E et.al(2004).*Human Development,9<sup>th</sup> ed.* New Delhi.Tata McGraw Hill Publishing Company Limited.

## B. Sc PSYCHOLOGY

**SEMESTER: 4**

**Credit: 4**

**CodeNo: APSY4B05P**

# EXPERIMENTAL PSYCHOLOGY – PRACTICALS I

## OBJECTIVES:

- 1.To create interest in the subject matter of psychology.
- 2.To develop scientific and experimental attitudes in the students.
- 3.To facilitate comprehension of the theoretical concepts through experiments.
- 4.to develop the skills of observation and scientific reporting in psychology.

### Attention

- 1.Span of attention
- 2.Division of attention
- 3.Distraction of attention
- 4.Set in attention
- 5.Immediate memory span

### Illusion

- 6.Muller layer illusion
- 7.Horizontal vertical illusion

### Learning

- 8.Massed v/s spaced method of learning
- 9.Rote v/s meaningful learning
- 10.Trial and error learning

**NOTE:** From the list, 8 experiments must be compulsorily conducted.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5B06T**

### **ABNORMAL PSYCHOLOGY-1**

#### **OBJECTIVES:**

- i. To enable students to understand the concepts of abnormal behaviour
- ii. To develop awareness about different type of anxiety and stress disorders
- iii. To encourage the students to know different therapeutic techniques in management of anxiety and stress disorders

#### **Module 1: Basic concepts**

The concept of normality and abnormality, Historical view of abnormal behavior, classificatory systems. Major approaches to Psychopathology- Psychodynamic, Behavioral, Cognitive, Humanistic, Interpersonal, Existential Approaches

#### **Module 2: Causal Factors and Psychopathology**

Biological factors: Neurotransmitter- Hormonal imbalance- Genetic defect – Constitutional liabilities – Brain dysfunctions- Physical deprivation – Psychological factor – Schemas and self schemas – Early deprivation of trauma – Inadequate parenting – Pathogenic parenting structure – Maladaptive peer relationships – Socio-cultural factors - Socio-cultural environment – Pathogenic societal influence.

#### **Module 3: Stress disorders**

Reaction to common life stressors – Stress from unemployment – Stress from bereavement – Stress from divorce or separation – reaction to severe life stressors – Reaction to catastrophic events – Trauma of rape – The trauma of military combat – The trauma of forced relocation.

#### **Module 4: Anxiety Disorders**

Phobic disorders – Panic Disorders and agoraphobia – Generalized anxiety disorders – Obsessive compulsive disorders – Causal factors – Biological, Physiological and Socio-cultural

#### **Module 5: Somatoform and Dissociative disorders**

Somatization disorder – Hypochondriasis – Pain disorder – Conversion disorder – Dissociative amnesia and Fugue – Dissociative Identity disorder – Depersonalization disorder – Causal factors - Biological, Physiological and Socio-cultural factors

#### **REFERENCES**

1. Carson, R.C., Butcher, J.N., & Mineka, S. (1996). *Abnormal Psychology and Modern Life*. (10<sup>th</sup> ed). New York: Harper Collins Inc.
2. Sadock, B.J., & Sadock, V.N. (2007). *Synopsis of Textbook of Psychiatry*. London: William & Wilkins.
3. Sarason, I.G., & Sarason, B.R. (2005). *Abnormal Psychology- The problem Of Maladaptive behavior*. India: Dorling Kindersly.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5B07T**

### **SOCIAL PSYCHOLOGY**

#### **OBJECTIVES:**

To enable the student to

Understand and explain behavior in social settings

Explain the psychological aspects of various social phenomena

To create awareness about the management of human behaviour in group settings

#### **Module 1: Introduction to Social Psychology & Social Perception**

Definition aims and scope - Theoretical perspectives –Social Perception-Definition, Non-Verbal Communication- facial expression, gazes, stares, body language, touching, deception and micro expressions. Attribution - Definition, Theories - Correspondence inference, Kelly's theory, Applications of attribution theory, Attribution Errors.

#### **Module 2: Attitudes**

Attitude and behavior - Definition, nature, components, functions and formation of attitudes. Persuasion, cognitive approach to persuasion, resistance to persuasion. Cognitive dissonance and attitude change.

#### **Module 3: Group, Social Influence, and Interpersonal Attraction**

Groups: nature and functions. Social facilitation, social loafing. Decision making in groups. Group think. Social influence: Conformity, Factors affecting conformity. Compliance: Underlying principles and tactics. Obedience and destructive obedience. Interpersonal attraction: beginning of attraction, proximity, emotions, affiliation need. Becoming acquainted- situational determinants- Love- Triangular Model of love.

## **Module 4: Prosocial behavior and Aggression**

Responding to emergency, Steps. Altruistic personality. Volunteering. Explaining prosocial behavior: Empathy altruism model, negative state relief model, empathic joy hypothesis, genetic determinism. Aggression. Theoretical perspectives on aggression: role of biological factors, drive theories, modern theories of aggression. Determinants of aggression: social, personal, situational. Media violence, child abuse, domestic violence. Prevention and control of aggression.

## **REFERENCES**

1. Baron, R.A., Branscombe, N.R., Byrne, D., & Bhardwaj, G. (2009). *Social Psychology*, 12<sup>th</sup> ed. New Delhi: Pearson Education.
2. Baron, R.A., & Byrne, D. (2002). *Social Psychology*, 10<sup>th</sup> ed. New Delhi: Pearson Education.
3. Chaube, S.P., & Chaube, A. (2006). *Groundwork for Social Psychology (Vol.1)*.Hyderabad: Neelkamal Publications Pvt.Ltd.
4. Feldman, R.S. (2001). *Social Psychology*, 3<sup>rd</sup> ed. N J. Pearson Education.
5. Michener, H. A., Delamater, J.D., & Myers, D.J. (2004). *Social Psychology*. Australia: Thomson Wadsworth Publication.
6. Myers, D.G. (1999). *Social Psychology*, 7<sup>th</sup> ed. New Delhi : Pearson Education.
7. Schneider, F.W., Gruman, J.A., & Coutts, L.M. (2005). *Applied Social Psychology: Understanding and addressing social and practical problems*. New Delhi: Sage Publication.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5B08T**

### **PSYCHOLOGICAL MEASUREMENT AND TESTING**

#### **Objectives:**

To offer foundation on psychological measurement and testing  
To provide the basis of test construction

To build up skills on developing psychometric tests

To familiarize the uses of psychological tests

To make aware of ethical principles in testing

#### **Module 1: Levels of Measurement**

Definition of measurement; Levels of measurement-Nominal, Ordinal, Interval and Ratio scales in relation to properties of number system: Identity, Order, Equal interval, Zero point

#### **Module 2: Psychophysical methods**

Concepts of psycho physics: Absolute threshold, Difference threshold, Weber's law, Fechner's law, Signal detection theory, Subliminal perception. Method of Average Error, Method of Minimal Changes, Method of Constant Stimuli, Method of Paired Comparisons. Models of constructing attitude scales: Thurston, Likert, Guttman.

#### **Module 3: Basic concepts in Psychometry**

Norm – referenced and criterion- referenced measurement. Speed test and power test, Individual and group tests, Verbal, Non-verbal and performance tests, Item analysis- difficulty index and discrimination index, Validity and reliability, Norms.

## **Module 4: A Sample of Psychological Tests**

Brief description of the following tests: Binet - Simon scale, Raven's Progressive Matrices : CPM & SPM, Wechsler Adult Intelligence Scale, Big Five Factor Scale, Thematic Apperception Test, Differential Aptitude Test, Bell's Adjustment Inventory, Strong Vocational Interest Blank.

## **REFERENCES**

1. Anastasi, A., & Urbina, S. (2010). *Psychological Testing* (7<sup>th</sup> ed.). Delhi: Pearson Education.
2. Chadha, N. K. (2009) *Applied Psychometry*. New Delhi, Sage Publication
3. Furr, R. M & Bacharach, V. R (2008) *Psychometrics*. California: Sage Publication
4. Gregory, R.J. (2000). *Psychological Testing: History, Principles, and Application* (3<sup>rd</sup> ed.). Boston: Allyn & Bacon.
5. Krech, D., Crulchfield, R. S & Ballachey, E. L. (1963) *Individual in Society*. London: McGraw-Hill International Book Company.



## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5B09T**

### **LEARNING AND BEHAVIOUR**

#### **Module1: Introduction-**

Innate behaviour patterns and Habituation: Characteristics of goal directed systems, reflexes, sequences of behaviors; General principles of Habituation. SR theories in brief - Thorndike, Guthrie, Hull.

#### **Module 2: Classical conditioning**

Basic experiment, basic terms- conditioned stimulus, unconditioned stimulus, conditioned response, unconditioned response, stimulus generalization, discrimination, higher order conditioning, extinction, spontaneous recovery, delayed, backward, trace conditioning. Common Pavlovian conditioning procedures, excitatory and inhibitory processes. Recent developments- blocking effect, CS pre exposure effect, Overshadowing, The over expectation effect, Sensory pre conditioning; Biological constraints on classical conditioning ; Applications.

#### **Module 3: Operant Conditioning**

Basic experiments, basic terms- positive and negative reinforcement and punishment, schedules of reinforcement, Shaping of Behaviour Factors affecting performance on reinforcement schedules; Escape Learning, Avoidance Learning and Learned Helplessness; Biological constraints on operant conditioning; Applications.

#### **Module 4: Cognitive theories**

Kohler- Insight learning, Tolman- Sign learning and Latent learning. Social learning theory.

## REFERENCES

1. Domjan, M. (2006). Learning and Behaviour(6<sup>th</sup> ed.). USA: Wardsworth.
2. Hilgard, E. R & Bower, G. H. (1975) Theories of Learning. New Jersey: Prentice Hall, INC
3. Hecenhahn, B. R. (1976). An introduction to Theories of learning. USA: prentice hall. Inc.
4. Mazur, J. E (2002) Learning and Behaviour (5<sup>th</sup> Edn). New Jersey: Prentice Hall

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

### **ELECTIVE**

**One paper has to be selected by students from the following Four:**

**APSY5E01T:** Organizational Psychology

**APSY5E02T:** Educational Psychology

**APSY5E03T:** Psychology of Crime

**APSY5E04T:** Health Psychology

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5E01T**

### **Elective**

## **ORGANIZATIONAL PSYCHOLOGY**

### **Objectives:**

- 1). To familiarize the concept of human Behaviour in Organizations
- 2). To give knowledge about work-motivation, group, leadership and organizational culture

### **MODULE 1:INTRODUCTION TO ORGANISATIONAL BEHAVIOUR**

The Concept of Organization – Organization and its External Environment – Organisation goals – Challenges and Opportunities - Concepts of Management

### **MODULE 2:ORGANISATION STRUCTURE – INTRODUCTION**

Definition, Related concepts, Types, New patterns, Designing and seven structural configuration: Organisation Theories – Classical, Neo- classical, Systems, Contingency and Organisational learning approach.

### **MODULE 3:PERCEPTION AND MOTIVATION**

The perceptual process, perceptual stimuli, perceptual selection, perceptual organization, social perception, perceptual interpretation and impression management.

Meaning of Motivation, content theories and process theories, management by objectives, employee recognition programs, employee involvement programs, job redesign and scheduling programs, pay programs.

## **MODULE4:GROUPS AND LEADERSHIP**

Basic groups, Theories of group formation, Work teams, Team and quality management and communication.

Leadership- What is leadership, Followership, Leaders and managers, Approaches to the study of leadership phenomenon, Emerging perspectives in leadership.

## **MODULE 5:CONFLICT AND STRESS**

Meaning of conflict, The process of conflict, Classes and sources of conflict, Resolution of conflict.

Meaning of stress, Approaches to understanding stress, Causes of stress, Consequences of stress and Management of stress.

## **REFERENCES**

1. Robbins, S.P.(2005) *Essentials of Organizational Behaviour*, 8<sup>th</sup> ed. New Delhi: Prentice Hall India Pvt. Ltd.
2. Sharma, R.A.(2000) *Organizational Theory and Behaviour*,2<sup>nd</sup> ed. New Delhi: Tata McGraw Hill Publishing Company Limited.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5E02T**

### **Elective**

## **EDUCATIONAL PSYCHOLOGY**

### **Objectives:**

- 1). To promote an understanding of the application of psychological principles in the process of education.
- 2). To familiarise the students with the characteristics of normal and exceptional children.
- 3). To provide the ways and methods of teaching and classroom management.

### **Module 1: Introduction**

Nature and Scope of Educational Psychology – Contribution of Piaget, Vygotsky, Skinner, Rogers and Maslow, And Gardener on Education

### **Module 2: Child Development and Learning**

Age-level characteristics and education – Physical, social, emotional and cognitive characteristics of Pre-school and Kinder garten , Lower Primary, Upper Primary, Secondary and Higher secondary students and their implications.

Learning: Behavioural approach – Objectives of instruction – Mastery Learning – Behaviour modification techniques.

### **Module 3: Educating Exceptional Children**

Education of Gifted Children, Juvenile delinquent, Learning Disabled , Mentally Retarded , Physically Disabled ,, Emotional and Behavioural Disordered.

## **Module 4: Motivation**

Behavioural, Cognitive and humanistic perspective – Implication of achievement motivation and attribution theories – Teacher expectations and student learning – Techniques for enhancing student motivation.

### **REFERENCES**

1. Bichler, R. F & Snowman, J (1990) *Psychology Applied to Teaching* (6<sup>th</sup> Edn) Boston: Houghton Mifflin Company.
2. Santrock, J.W. (2011). *Educational Psychology* (4<sup>th</sup> ed.). New Delhi: Tata McGraw-Hill.
3. Woolfolk, A (2004) *Educational Psychology* (9<sup>th</sup> Edn) Delhi: Pearson Education

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5E03T**

### **Elective**

## **PSYCHOLOGY OF CRIME**

#### **Objectives:**

- Mold youngsters with conceptual knowledge in Criminology.
- To enable the students to build up on their analytical skills in Criminology.

#### **MODULE 1: THEORY AND METHOD**

Crime, Criminal law and Criminals-Theories of Crime-Foundations of Modern Criminology-Theories of Crime-Radical, Situational, and Rationality perspectives-Getting a Line on Crime: The production and Use of Data.

#### **MODULE 2: CRIMES AND CRIMINAL OFFENDERS**

Murder and Assault-Robbery: Theft by violence and varieties of non-violent- Occupational and Organized Crime- Public Order Crime.

#### **MODULE 3: DOING SOMETHING ABOUT CRIME**

Policing society- The judicial process and punishing the criminal offender-. Consequences of Punishment- Crime and Public Policy.

#### **MODULE 4: CORRECTIONAL PSYCHOLOGY**

Correction Psychology in Adult Setting- Psychological Assessment in Corrections- Treatment and Rehabilitation in Correctional Facilities- Juvenile Corrections.

#### **MODULE 5: FORENSIC PSYCHOLOGY**

Definition- General Concepts- Special areas: Investigative Psychology-Police Psychology-Child Forensic Psychology-Forensic Psychology



## REFERENCES:

1. Bartol, C.R & Bartol , A.M. (2004) *Forensic Psychology*. U.K: Sage Publications.
2. Barlow, H.D (1987). *Introduction to Criminology*, Boston: Little Brown & Co.
3. Howtt (2202) *Forensic and Criminal Psychology*. London: Prentice Hall.
4. Dutta, R.K. (2203) *Crime against Women*. New Delhi: Reference Press
5. Pognebin, M.R (2003) *Qualitative Approaches to Criminal Justice perspective from the field*. London: Sage Publications.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 5**

**Credit: 3**

**Code No: APSY5E04T**

### **Elective**

## **HEALTH PSYCHOLOGY**

### **Module 1: Introduction to Health Psychology**

Need and significance. History. Health, disease, illness, well-being and quality of life.

Contributions. Bio-psycho-social model.

### **Module 2: Stress and Management**

Stress: Models, Physiological Basis. Psychophysiological and Psychosomatic Disorders. Coping & Stress Management. Psychoneuroimmunology.

### **Module 3: Theoretical basis for changing health habits**

Attribution Theories, Health Locus of Control, Health Belief Model, Protection Motivation

Theory, Theory of Planned Behavior, Social Cognitive Theories, Health Action Process Approach,

Transtheoretical Change Model, Models of Prevention.

### **Module 4: Health Enhancing and Health Compromising Behaviors**

Exercise, Diet, Weight Control, Cancer Related Health Behaviors, Rest, Relaxation,

Substance use and abuse, Inappropriate Medication Seeking Behavior. Interventions

## **Module 5: Psychosocial Aspects of Chronic Illnesses**

Cancer, AIDS, Hypertension, Diabetes, Ageing, Terminal Illnesses, Degenerative diseases, Death,  
Psychosocial Management of Chronic Illnesses

### **REFERENCE**

1. Brannon, J. & Feist, J. (1999). *Health Psychology: An Introduction to Behavior and Health* (4<sup>th</sup> ed,) Wadsworth Thomson Learning
2. Dematteo, R.M & Martin, R.L. (2007). *Health Psychology*. Pearson Education
3. Marks, D.F; Murray, M; Evans, B & Estacio, E. V. (2008). *Health Psychology: Theory & Practice*. Delhi: Sage
4. Roberts, R., Towell, T. & Golding, J.F. (2001). *Foundations of Health Psychology*. Palgrave Houndmills, New York.
5. Taylor, E. (2006). *Health Psychology*. New Delthi: Mc Graw Hills Inc.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 6**

**Credit: 3**

**Code No: APSY6B10T**

### **ABNORMAL PSYCHOLOGY-II**

#### **OBJECTIVES:**

1. To develop awareness about Major Psychological Disorders
2. To acquaint the students with causes of major psychological disorders
3. To familiarize the students about different therapeutic techniques used in the management of major psychological disorders.

#### **Module1: Personality Disorders**

Clinical features of personality disorders, Types of personality disorders – Paranoid, Schizoid, Schizotypal, Histrionic, Narcissistic, Antisocial, Borderline, Avoidant, Dependent, Obsessive-compulsive, Passive aggressive personality disorders – Causal factors in Personality Disorders – Biological, Physiological and Socio-cultural factors – Sexual development and orientation disturbances

#### **Module 2: Substance abuse and dependence:**

Alcohol abuse and dependence – Clinical Picture – Causal factors – Treatment and outcomes – Drug abuse and dependence – opium and its derivatives – Barbiturates – Amphetamines – Cocaine – Hallucinogens – Marijuana – Caffeine and nicotine – Factors affecting drug abuse.

#### **Module 3: Mood Disorders**

Mania and depression – Unipolar and Bipolar disorders – cyclothymia – Schizoaffective disorders – Causal factors in mood disorders – Biological, Physiological and Socio-cultural factors.

## **Module 4: Schizophrenia and Delusion Disorder**

The clinical picture in schizophrenia – subtypes of schizophrenia – Paranoid Type – Catatonic type – Disorganized Type – Residual Type and undifferentiated type - Causal factors in schizophrenia– Biological, Physiological and Socio-cultural factors - The clinical picture in delusional disorder – Causal Factors in delusional disorder.

### **REFERENCES**

1. Carson, R.C., Butcher, J.N., & Mineka, S. (1996). *Abnormal Psychology and Modern Life*. (10<sup>th</sup> ed). New York: Harper Collins Inc.
2. Sadock, B.J.,& Sadock, V.N. (2007) *Synopsis of Textbook of Psychiatry*. London: William & Wilkins.
3. Sarason, I.G.,& Sarason, B.R., (2005) *Abnormal Psychology- The problem Of Maladaptive behavior*. India: Dorling Kindersly.
4. Hurlock, E.B. (1976). *Personality Development*, (IMH Ed). New York: McGraw Hill.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 6**

**Credit: 3**

**Code No: APSY6B11T**

### **APPLIED SOCIAL PSYCHOLOGY**

#### **Objectives:**

1. To familiarize the theoretical concept and research methods in applied psychology.
2. To give knowledge about application of social psychology in different areas like clinical, educational, health and media.
3. To understand the major social issues in India.

#### **Module 1: Foundations of applied social psychology**

Social psychology and related disciplines. Applied social psychology: historical context. Social psychological theories- cognitive dissonance theory, group think theory. Research methods in applied social psychology.

#### **Module 2: Applying social psychology to clinical and counseling psychology**

Social psychological roots of social anxiety. Social psychological model of depression. Treatment and prevention- self presentation theory, hopelessness theory and biases in clinical decision making. Psychiatric social work- need and role of a case worker, after-care work, data collection, help to the family and helping the patient.

#### **Module 3: Applying social psychology to the media and health**

Consequence of viewing media violence- fear, aggressive thoughts. Effects of exposure to violent pornography. Reducing the harmful effects of exposure to violent sexual material. Effects of media influence on our thought. Health : Biopsychosocial model. Promoting Health and preventing illness. Changing health behavior. Stress, coping and social support.

#### **Module 4: Applying Social Psychology to education and classroom**

Intrapersonal processes- Increasing success reducing failures, factors affecting student performance, improving students performance. Interpersonal processes- teacher student interaction, teacher expectation, student achievement, cognitive errors and student, self perception and their academic consequence. School violence.

#### **Module 5: Social problems in India and applying social psychology to positive well-being**

The concept of social problems, characteristics, causes, types, stages in the development of social problems, and solving social problems. Brief description about the concept of poverty, unemployment, population explosion, child abuse and child labor, and violence against women. Positive social psychology, optimism –pessimism, self assessment, benefits of optimism, positive coaching exercise, broadening the perspective on positive well-being.

#### **REFERENCES**

1. Chaube, S.P., & Chaube, A. (2006). *Groundwork for Social Psychology (Vol.1)*.Hyderbad: Neelkamal Publications Pvt. Ltd.
2. Myers, D.G. (1999). *Social Psychology, 7<sup>th</sup> ed.* New Delhi: Pearson Education.
3. Ram ahuja (1999).*Social Problems in India*. Jaipur and New Delhi: Rawat Publications.
4. Schneider, F.W., Gruman, J.A., & Coutts, L.M. (2005). *Applied Social Psychology: Understanding and addressing social and practical problems*. New Delhi: Sage Publication.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 6**

**Credit: 3**

**Code No: APSY6B12T**

### **COUNSELLING AND PSYCHOTHERAPY**

#### **OBJECTIVES**

1. To enable the student to explore the different theories of Psychotherapy and Counselling psychology
2. To enable the student to acquire the sufficient knowledge in the area of Counselling and Psychotherapy in order to understand areas of specialization.

#### **MODULE 1 : FUNDAMENTALS OF COUNSELLING AND PSYCHOTHERAPY**

Definition, Goals, Process of counseling and psychotherapy, Counselling relationship – Characteristics of counselor, Termination and Follow up, Areas of Counselling and Psychotherapy – Basic differences, Ethical issues.

#### **MODULE 2: STRATEGIES AND TECHNIQUES**

Counselling Interview – Assessment and diagnosis – Psychological testing – Working with hesitant clients.

#### **MODULE 3: THEORIES AND PRACTICE OF COUNSELLING AND PSYCHOTHERAPY**

Brief description on Psychoanalytic therapy – Person Centered therapy – Gestalt therapy – Behavioural therapy - Cognitive therapy

#### **MODULE 4 : APPLICATION OF COUNSELLING AND PSYCHOTHERAPY**

Counselling children and adolescents – School and educational counseling – Career counseling – Marital and family counseling – Alcohol and substance abuse counseling – counseling older adults – Crisis intervention.



## **MODULE 5: GROUP COUNSELLING AND PSYCHOTHERAPY**

Brief description about group counselling and psychotherapy-Effective leadership in group therapy – Therapeutic group work: Training groups, Sensitivity training groups, Encounter and growth group, Self-help group – Groups in health and medical settings, Groups in work place.

### **REFERENCES**

1. Corey, G(2001) *Theory and Practice of Counselling and Psychotherapy*.6<sup>th</sup> ed. Brooks/Cole :USA
2. DeLucia-Waack, J.L., Gerrity,D.A., Kalodnes.C.R., Riva,M.T(2004) *Handbook of Group Counselling and Psychotherapy*. Sage Publication: NewDelhi.
3. Gelso,C.J., Fretz,B.R (1992) *Counselling Psychology*. Harcourt Brace College Publishers : NewYork
4. Jones, N.R(1995) *Theory and Practice of Counselling*,2<sup>nd</sup> ed, Holt, Rinehart and Winston Ltd. NewYork.
5. Patterson, L.E (1999) *The counseling process*,5<sup>th</sup> ed, Cleveland State University, Thomson Asia pvt Ltd,USA.
6. Sharf, R.S (2000) *Theories of Psychotherapy and Counselling: Concepts and Cases*, 2<sup>nd</sup> ed. Brooks/Cole :USA
7. Woolfe,R., Dryden,W., Strawbridge, S(2003) *Handbook of Counselling Psychology*,2<sup>nd</sup> ed Sage Publication: New Delhi.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 6**

**Credit: 3**

**Code No: APSY6B13T**

### **COGNITIVE PSYCHOLOGY**

#### **OBJECTIVES:**

Familiarize the field of Cognitive Psychology.

To enable students to gain an understanding about the development of the field of Cognitive Psychology

Create awareness about the current standing of the field.

#### **Module 1: Cognitive psychology: Coming of age**

Perspectives of cognition: Information processing and connectionist approach History:

Philosophical, psychological and technological roots of cognitive psychology

#### **Module 2: Methods of tapping the mind**

Experimental cognitive psychology; Cognitive neuropsychology; Cognitive neuroscience; Cognitive science

#### **Module 3: A few cognitive theories**

Memory: Atkinson Shiffrin Model of memory; Levels of processing model; Nature of memory model

Visual perception: Bottom up and top down approach

#### **Module 4: Changing nature of cognition- I**

Traditional theories of intelligence: Two-factor theory, Hierarchical theory, Multi-factor theory,

Three dimensional models.

## **Module 5: Changing nature of cognition- II**

Contemporary theories of intelligence : Sternberg's theory, Gardner's theory, Goleman's theory, PASS model.

### **REFERENCES**

1. Eysenck, M. W., & Keane, M. T. (2000). *Cognitive psychology: A Students Guide*. New York: Psychology Press.
2. Margeret, M. (2009). *Cognition* (7th edition). John Wiley & Sons
3. Sternberg, R. J. (2007). *Cognitive Psychology* (5th edition). Delhi: Thomson Wadsworth.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 6**

**Credit: 3**

**Code No: APSY6B14T**

### **PERSONALITY PSYCHOLOGY**

#### **Module 1: Psychoanalytic approach**

Freud's theory – structure of mind- Id, Ego, Super ego. Instincts: life and death instincts, characteristics of instincts: Source, pressure, aim, object. Different types of anxiety and defense mechanisms. Psychosexual stages- Oedipus complex, interpretation of Dreams.

Contributions of Neo Freudians in brief: Jung, Adler, Horney, Erich Fromm.

#### **Module 2: Trait theories:**

Trait theories- concept of a personality trait, cardinal, central and secondary dispositions, surface and source traits. Characteristics of each of the factors and sub dimensions of Five Factor theory. Indian concepts: Triguna theory.

#### **Module 3: Humanistic perspectives.**

Rogers- the field of experience, the self as process, self actualizing tendency, personal power, congruence and incongruence, fully functioning person. Maslow- Hierarchy of Needs, self actualization, peak experiences, eupsychia, synergy.

#### **Module 4: Eastern and Positive Perspectives**

Brief Description of Eastern views: yoga- three principles of creation, karma, schools of yoga. Zen and Buddhism- three characteristics of existence, the four noble truths, the eight fold path. Sufism- four stages of Sufi practice. Paths of Sufism, annihilation and return.

Perspectives of Positive Psychology: Classification of character strengths and virtues by Peterson and Martin Seligman (2004) : 6 virtues (wisdom, Courage, Humanity, Justice, Temperance and Transcendence); character strengths (Total 24) associated with virtues; research findings in relation to character strength ; Implications

## REFERENCES

1. Aleem, S. (2012). *Theories of psychology*. India: Dorling Kindersley.
2. Carr, Alan (2011) *Positive Psychology* (2<sup>nd</sup> Edn) London : Routledge
3. Frager, R., & Fadiman, J. (2009). *Personality and Personal Growth* (6<sup>th</sup> ed). India: Dorling Kindersley.
4. Hall, C.S., Lindzey, G., Campbell, G.B.(1998). *Theories of Personality*. (4<sup>th</sup> ed). New Delhi: John Wiley& sons

## B. Sc PSYCHOLOGY

SEMESTER: 6

Credit: 4

Code No: APSY6B15P

### EXPERIMENTAL PSYCHOLOGY – PRACTICALS II

#### OBJECTIVES:

- 1.To create interest in the subject matter of psychology.
- 2.To develop scientific and experimental attitudes in the students.
- 3.To facilitate comprehension of the theoretical concepts through experiments.
- 4.to develop the skills of observation and scientific reporting in psychology.

#### Sensation and perception

- 1.Depth perception
- 2.Colour blindness

#### Reaction time

- 3.Simple reaction time
- 4.Choice reaction time

#### Transfer of training 5.Bilateral

- transfer 6.Habit  
interference 7.Level of  
aspiration 8.Knowledge  
of results

#### Motor tests

- 9.Tracing tests
- 10.Steadiness test
- 11.Tweezer dexterity tests
- 12.Finger dexterity tests

**NOTE:** From the list 8 experiments must be compulsorily conducted. A few suitable experiments can be conducted using simple experimental design like before and after, 2 group experimental – control group designs and ABBA sequence.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 6**

**Credit: 4**

**Code No: APSY6B16P**

# **EXPERIMENTAL PSYCHOLOGY PRACTICALS III: PSYCHOLOGICAL TESTING**

### **OBJECTIVES:**

1. To familiarize with psychological instruments and tools.
2. To generate interest in the analysis of psychological tests
3. To develop the skills of testing and scientific reporting in psychology

### **LIST OF EXPERIMENTS**

1. 7 Sub tests of DAT
2. Standard Progressive Matrices (SPM)

Note: Above 2 tests are Compulsory

1. Eysenck's Personality Questionnaire- Revised
2. 16 PF Questionnaire
3. Bhatia's Battery of Performance Intelligence Test
4. Mathew Test of Mental Ability
5. Beck Depression Inventory
6. Bells Adjustment Inventory
7. Seguin Form Board Test
8. Emotional Intelligence Test

Note: From the list, 2 tests must be compulsorily conducted.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 6**

**Credit: 2**

**Code No: APSY6B17D**

### **PROJECT**

A small research work has to be conducted by students supervised by Teachers.

Qualitative, Exploratory, Descriptive, works have to be preferred.

Preferably tool may be prepared by students themselves like interview schedule, observation schedule, questionnaire, categories of content analysis etc.

Pattern:

Part – I: Introduction and Review - 4 -7 pages

Part - II: Objective and Method – 1-3 pages

Part – III: Result and Discussion – 3- 5 pages

Evaluation may be based on novelty, effort, presentation skills and knowledge base as evidenced in the viva



# OPEN COURSE

One or both of the following courses may be offered by Departments of Psychology for other students.

## CHOICE- I

Code: **APSY5D01T**      **PSYCHOLOGY AND PERSONAL GROWTH**      Credit: 2

## CHOICE- II

Code: **APSY5D02T**      **LIFE SKILL DEVELOPMENT**      Credit: 2

# OPEN COURSE

To be offered by Department of Psychology for other students

Semester: 5

Credit: 2

Code: **APSY5D01T**

## OPEN COURSE CHOICE- I

### **PSYCHOLOGY AND PERSONAL GROWTH**

The contents and teaching of this part is general and designed to suit as a general or peripheral paper for non-Psychology main students. The class room interaction should focus on experiential component of learning apart from the usual lectures

1. **Psychology:** - The subject matter and scope-Branches of Psychology and its application in personal and social life– Brief out line of transactional analysis and Positive Psychology.
2. **Concept of Happiness:** - Basic nature of emotional development. Positive and negative emotional state. Control of emotional states. Happiness – causes and effect of happiness-application in day to day life. Hope and Optimistic Behaviour-General concepts.
3. **Positive Self:** - Self esteem-determinants-self efficacy-Development of social and personal self-Barriers in self development. Conflicts and frustration management-coping processes - resolutions and positive approach in self development.
4. **Positive Social Relations:** - Person and social attitudes-Family and relationships-role of emotional intelligence in activating social life. Social well-being and personal growth.
5. **Methods for Personal Growth.** Meditation as a tool for personal growth-Yoga techniques for enhancing personal effectiveness and positive emotional and social life.

#### **Book for Study**

Carr, Alan (2011) *Positive Psychology* (2<sup>nd</sup> Edn), New York: Routledge Taylor and Francis Group.

#### **REFERENCE:**

- 1.1 Fadiman, James and Frager, Robert (2002) *Personality and Personal Growth* (5<sup>th</sup> Edn) Prentice Hall

**Semester: 5**

**Credit: 2**

**Code: APSY5D02T**

## **OPEN COURSE CHOICE- II**

### **LIFE SKILL DEVELOPMENT**

#### **Objectives:**

- 2.1 To promote life skill education
- 2.2 To develop abilities for adaptive and positive behavior
- 2.3 To enhance self confidence and self esteem

#### **Module 1: Introduction to Life skills**

Definition – communication and action skills: verbal and vocal communication skills- body language- Mind skills, rules skill, self talk skills, explanation skills, expectation skills, time management skills, self awareness

#### **Module 2: Presentation Skills**

Planning, structuring and delivering a presentation-Effective use of language and audio visual aid— Managing Performance Anxiety, Relaxation techniques, Interviews and Group Discussions

#### **Module 3: Relationship Skills**

Introduction- Skills for Listening and Understanding, Skills for choosing and starting relationship, Skills for anger management, Coping with emotions and stress, Leadership skills.

#### **Module 4: Critical Thinking Skills**

Critical Thinking, Creative Thinking-Stages, Strategies to improve creativity, Decision Making, Problem Solving- Steps, Strategies, Factors Affecting.

Activities: Make a Plan for Critical Thinking; Demonstrate Conflict Management.

## REFERENCES

- 3.1 Jones,R.N.(2007) *Life coaching skills-how to develop skilled clients*. New Delhi: Sage Publications.
- 3.2 Lewis,H.(2000) *Body Language- A guide to Professionals*. New Delhi: Response Books.
- 3.3 Kaul,A.(2005). *The Effective Presentation- Talk your way to success*. New Delhi: Response Books.
- 3.4 Mishra, B.K.(2008). *Psychology- The Study Of Human Behaviour*. New Delhi: Prentice Hall India Ltd.
- 3.5 Sherfield, R.M., Montgomery, R.J. &Moody, P.G.(2009). *Developing Soft Skills*. 4<sup>th</sup> ed  
New Delhi: Pearson Education
- 3.6 Shephard , K. (2005) *Presenting at Conferences, Seminars and Meetings*. New Delhi: Response Books.
- 3.7 Sanghi, S. (2007). *Towards a Personal Excellence-Psychometric Tests & Self Improving*
- 3.8 *Techniques for Managers*. New Delhi: Response Books.

# **Syllabus of Complimentary Papers of B. Sc Psychology**

- 4.1 Human Physiology: 4 Papers ( 1 each in first four semesters) Syllabus attached
- 4.2 Psychological Statistics : 4 Papers ( 1 each in first four semesters) Syllabus attached

## **B. Sc PSYCHOLOGY**

**SEMESTER: 1**

**Credit: 3**

**Code No: APSY1C01T**

## **HUMAN PHYSIOLOGY**

### **OBJECTIVES**

This course familiarizes the student of Psychology with the most essential and fundamental aspects of cell biology and basics of genetics that are essential for understanding the anatomy and physiology of the nervous system in general and of the CNS that they are to master in the following semesters.

### **Module 1 Cellular organization**

- 1.1 Cell structure, plasma membrane (fluid mosaic model), and cell organelles.
- 1.2 Cell inclusions-brief description on the structure of carbohydrates, lipids and proteins.
- 1.3 Cell theory, cell principle.
- 1.4 Unicellularity to multicellularity, differentiation. Brief mention of spatial and temporal control of gene activity.
- 1.5 Tissues- brief description of major types.

(Hours – 20)

### **Module 2 Genes and chromosomes**

2.1 Structure of D.N.A, D.N.A replication.

2.2 Concept of a gene - genetic code, introns, exons.

2.3 Morphology of chromosomes-size, shape, karyotype, idiogram, kinds of chromosomes.

2.4 Linkage and crossing over, sex linked chromosomes.

(Hours – 14)

### **Module 3 Cell division**

3.1 Cell cycle.

3.2 Mitosis.

3.3 Meiosis.

(Hours – 12)

#### **Module 4 Elements of heredity and variation**

4.1 Mendel's work and laws of inheritance (monohybrid cross, dihybrid cross, test cross).

4.2 Brief explanation of terms-alleles, homozygosity, heterozygosity, genotype, phenotype.

4.3 Brief description of other patterns of inheritance and genotype expression-incomplete dominance, co-dominance, multiple alleles, epistasis, pleiotropy.

(Hours – 12)

#### **Module 5 Mutations and Genetic disorders**

5.1 Gene mutation-Kinds of mutation, classification (Somatic, gametic, point, spontaneous, induced, dominant, recessive and silent mutations).

5.2 Gene mutation disorders - albinism, phenylketonuria, alkaptonuria, galactosemia, brachydactyly.

5.3 Autosomal anomalies - Down's syndrome, Edward's syndrome, Cri du chat syndrome.

5.4 Sex chromosomal anomalies - Klinefelter's syndrome and Turner's syndrome.

(Hours – 14)

#### **REFERENCE**

1. Vijayakumaran Nair & Jayaprakash, Cell Biology, Genetics, Molecular Biology, Academia, Thiruvananthapuram.
2. Gupta, P.K., Cell and Molecular Biology, Rastogi Publications, Meerat.
3. Dewitt-Saunders, Biology of the cell. *B.Sc. Human Physiology syllabus (CCSS) Complementary course 5*
4. Strickberger W.M-Mac Millan, Genetics.
5. Gerald Karp, Cell and Molecular Biology: Concept and Experiments.
6. Roothwell, Human Genetics, Prentice Hall.
7. Lodish;Verk; et.al; Molecular Cell Biology, W.H. Freeman publishers.
8. Verma, P. S. and Agarwal, V. K., Cell Biology, Genetics, Molecular Biology, Evolution and Ecology, S. Chand and Co. New Delhi.
9. De Robertis, E. D. P. and De Robertis, E. M. F., Cell and molecular Biology, 7<sup>th</sup> Edn, Hol-Saunders International Editions.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 2**

**Credit: 3**

**Code No: APSY2C03T**

## **HUMAN PHYSIOLOGY**

### **OBJECTIVES**

This course imparts extensive information to the Psychology student on the nervous system with special emphasis on the CNS. It also introduces the student to states of brain activities and techniques in neurophysiology.

### **Module 1 The Nervous System**

- 1.1 Divisions (CNS,PNS – somatic and autonomic)
- 1.2 Nervous tissue (neurons, nerve fibres, nerves, synapse).
- 1.3 Non nervous tissue and other materials (neuroglia, meninges, cerebro-spinal fluid, Blood - CSF and blood - brain barriers).
- 1.4 Nerve impulse - generation, conduction, synaptic transmission, role of calcium ions, action of transmitter substances on postsynaptic neuron, types of transmitter substances. (Hours – 20)

### **Module 2 The Central Nervous System**

- 2.1 Brain – an overview (Forebrain, midbrain, hindbrain).
- 2.2 Spinal cord – an overview of its structure and organization.
- 2.3 Reflex Action – monosynaptic reflex, multisynaptic reflex, crossed extension reflex, mass reflex. (Hours – 14)

### **Module 3 The Cerebellum and the Basal Ganglia**

- 3.1 The Cerebellum and its motor functions.
- 3.2 Anatomical functions, areas of the cerebellum.
- 3.3 Function of the cerebellum in overall motor control.



3.4 The basal ganglia-their motor functions, role of the basal ganglia for cognitive control, functions of neurotransmitters with basal ganglia. (Hours – 14)

#### **Module 4 The Cerebral Cortex**

4.1 Functions of the specific cortical areas –association areas (parieto occipito temporal, prefrontal and limbic association areas with special emphasis on Wernike’s area and Broca’s area), area for recognition of faces, concept of the dominant hemisphere.

4.2 Function of the brain in communication - Sensory and Motor aspects of communication. (Hours – 12)

#### **Module 5 States of brain activity and Techniques in neurophysiology**

5.1 Sleep –Basic theories of sleep, Brain waves, Slow wave sleep and REM sleep.

5.2 Brain imaging – CT, MRI, PET, CBF, EEG, Lesioning and Electrical Stimulation of Brain (ESB). (Hours – 12)

*B.Sc. Human Physiology syllabus (CCSS) Complementary course 6*

#### **REFERENCE**

6. Schneider A.M & Tarshis B., An introduction to Physiological Psychology, Random House, New York.
7. Guyton & Hall – Textbook of Medical Physiology, 12<sup>th</sup> Edn., Saunders.
8. Sherwood L, Thomson, Human Physiology.
9. Kalat J.W, Wadsworth C.A, Biological Psychology.
10. Levinthal C.F, Introduction to Physiological Psychology, Prentice Hall, New Delhi.
11. K.Sembulingam and Prema Sembulingam, Essentials of Medical Physiology, Jaypee brothers Medical Publishers Pvt. Ltd.
- 7 . Chatterjee, C.C, Human Physiology, Medical Allied Agency.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 3**

**Credit: 3**

**Code No: APSY3C05T**

### **HUMAN PHYSIOLOGY**

#### **OBJECTIVES**

This course familiarizes the student of Psychology with the sensory systems, pathways and perception of various senses. It also introduces the student to the endocrine system.

#### **Module 1 The Visual System**

1.2 Structure of the human eye, Organization of retina and visual pathways.

1.3 Functioning of the eye, visual coding, chemistry of vision, transduction in the retina, theories of color vision, visual perception.

1.4 Visual defects (myopia, hypermetropia, presbyopia, astigmatism, cataract, color blindness, nyktelopia). (Hours – 18)

#### **Module 2 Auditory System**

2.4 Anatomy of the auditory system.

2.5 Auditory pathways, auditory perception and hearing abnormalities.

2.6 Statoreceptors. (Hours – 16)

#### **Module 3 Gustatory and Olfactory system**

3.9 Anatomy of taste buds and its function, primary sensations of taste, taste thresholds and intensity discrimination, taste preferences and control of the diet.

3.10 Taste pathways and transmission of signals into the central nervous system.

3.11 Organization of the olfactory membrane, sense of smell and stimulation of the olfactory cells.

3.12 Categorizing smell, transmission of smell signals into the central nervous system.

(Hours – 16)

## **Module 4 Cutaneous senses (Somatic sensations)**

- 4.3 Classification – the mechanoreceptive somatic senses (tactile and position), the thermoreceptive senses (heat and cold), the pain sense.
  - 4.4 Detection and transmission of tactile sensations – tactile receptors, detection of vibration, tickling and itch.
  - 4.5 Sensory pathways for transmitting somatic signals into the central nervous system, somatosensory cortex, position senses, position sensory receptors.
  - 4.6 Thermal sensations - thermal receptors, their excitation and transmission of thermal signals.
  - 4.7 Pain – purpose, types, pain receptors, pain suppressive system, pain sensation. (Hours – 20)
- B.Sc. Human Physiology syllabus (CCSS) Complementary course 7*

## **Module 5 Endocrine system**

- 5.1 Introduction to endocrinology, an overview of the importance of endocrine glands.
- 5.2 Mode of action of hormones and influence on growth and behavior.
- 5.3 Major endocrine glands – their location, structure, hormones produced and its role  
(Hypothalamus, pituitary, thyroid, adrenal, gonads, thymus, pineal body, placenta). (Hours – 20)

## **REFERENCE**

1. K. Sembulingam and Prema Sembulingam, Essentials of Medical Physiology, Jaypee brothers Medical Publishers Pvt. Ltd.
2. Guyton & Hall, Textbook of Medical Physiology 12<sup>th</sup> Edn., Saunders.
3. Sebastian M.M, Animal Physiology, Madonna.
- 4 Kalat J.W, &Wadsworth C.A, Biological Psychology.
5. Barrett E. Kim, Barman M. Susan et.al; Ganong's review of Medical Physiology, Tata McGraw Hill Education Pvt. Ltd.
6. Sarada Subrhmmanian and K. MadhavanKutty, A Text Book of Physiology. Orient Longman Publication.
7. Sujith K. Chaudhari, Concise Medical Physiology, New Central Book Agency, Delhi.
8. A. K. Jain, Text Book of Physiology Vol.1 & 2, Avichal Publications.

## **B. Sc PSYCHOLOGY**

**SEMESTER: 4**

**Credit: 3**

**Code No: APSY4C07T**

### **HUMAN PHYSIOLOGY**

#### **OBJECTIVES**

This course familiarizes the student of Psychology with the most essential and fundamental aspects of physiological processes underlying psychological events like hunger, thirst, sexual behavior and emotion. It also dwells on brain damage and Neuroplasticity.

#### **Module 1 Physiological basis of hunger**

- 1.1 Neural control of food intake - Role of hypothalamus, Neural centers that influence mechanical process of feeding.
- 1.2 Factors that regulate quantity of food intake, role of hormones (effect of Cholecystokinin, Peptide YY, GLP, Ghrelin).
- 1.3 Short-term regulation of food intake, intermediate and long-term effect of food intake. (Effect of blood concentrations of glucose, aminoacids, lipids on hunger and feeding), temperature regulation of food intake.
- 1.4 Obesity - causes and treatment, Eating disorders (Bulimia, Anorexia, Inanition, Cachexia, Picca). (Hours – 20)

#### **Module 2 Physiological basis of thirst**

- 2.1 Peripheral factors in water regulation.
- 2.2 Central factors in water regulation (cellular dehydration thirst and hypovolemic thirst). (Hours – 14)

#### **Module 3 Physiological basis of sexual behavior**

- 3.1 Hormones and sexual development – Fetal hormones and the development of reproductive organs, Sex differences in the brain, Perinatal hormones and behavioral development, Puberty: hormones and development of secondary sexual characteristics.

3.2 Effects of gonadal hormones on adults – Male reproduction related behavior and testosterone, Female reproduction related behavior and gonadal hormones.

*B.Sc. Human Physiology syllabus (CCSS) Complementary course 8*

3.3 Neural mechanisms of sexual behavior – Structural differences between the male hypothalamus and female hypothalamus, the hypothalamus and male sexual behavior, the hypothalamus and female sexual behavior. (Hours – 20)

#### **Module 4 Neural basis of emotion**

4.1 Role of frontal lobes.

4.2 Behavioural functions of the hypothalamus and associated limbic structures, Reward centers, Rage – its association with punishment centers, placidity and tameness.

4.3 Functions of Amygdala. (Hours – 18)

#### **Module 5 Brain Damage and Neuroplasticity**

5.1 Causes of brain damage – Brain tumors, Cerebrovascular disorders (Cerebral hemorrhage, Cerebral ischemia), Infections of the brain (Bacterial infections, Viral infections), Neurotoxins, Genetic factors, Apoptosis.

5.2 Neuropsychological disorders – Epilepsy (Grand Mal Epilepsy, Petit Mal Epilepsy and Focal Epilepsy), Parkinson's disease, Huntington's disease, Multiple sclerosis, Alzheimer's disease. (Hours – 18)

#### **REFERENCE**

1. Schneider A.M & Tarshis B, An introduction to Physiological Psychology, Random House, New York.

2. Guyton & Hall, Saunders, Textbook of Medical Physiology.

3. Sherwood L, Thomson, Human Physiology.

4. Kalat J.W, Wadsworth C.A, Biological Psychology.

5. Levinthal C.F, Introduction to Physiological Psychology, Prentice Hall, New Delhi.

6. Pinel P.J John, Biopsychology, Pearson.

7. Neil.R.Carlson, Physiology of behavior, Pearson publishers.

8. Barrett E. Kim; Barman M. Susan et al., Ganong's Review of Medical Physiology; Tata McGraw Hill Education Pvt. Ltd.

9. Alcock John, Animal Behavior, 6<sup>th</sup> edition, Sinauer Associates, Inc. Sunderland, Massachusetts.

10. Carlson, Neil, R., Physiology of Behavior, 8<sup>th</sup> edition, Pearson.

## B. Sc PSYCHOLOGY

**SEMESTER: 1**

**Credit: 3**

**Code No: APSY1C02T**

### PSYCHOLOGICAL STATISTICS

#### **Module 1: Pre-requisites.**

A basic idea about data, its collection, organization and planning of survey and diagrammatic representation of data is expected from the part of the students.

#### **Module 2: Classification and tabulation**

Classification of data, frequency distribution, formation of a frequency distribution, Graphic representation *viz.* Histogram, Frequency Curve, Polygon, Ogives and Pie Diagram.

#### **Module 3: Measures of Central Tendency.**

Mean, Median, Mode, Geometric Mean, Harmonic Mean, Combined Mean, Advantages and disadvantages of each average.

#### **Module 4: Measures of Dispersion.**

Range, Quartile Deviation, Mean Deviation, Standard Deviation, Combined Standard Deviation, Percentiles, Deciles, Relative Measures of Dispersion, Coefficient of Variation. **Module 4: Module**

#### **5: Skewness and Kurtosis.**

Pearson's Coefficient of Skewness, Bowley's Measure, Percentile Measure of Kurtosis.

#### References

1. Gupta, S. P. (1988). *Statistical Methods*. Sultan Chand and Sons: New Delhi.
2. Gupta, S. C., & Kapoor, V. K. (2002). *Fundamentals of Applied Statistics*. New Delhi: Sultan Chand and Sons.
3. Garret, H. E., & Woodworth, R. S. (1996). *Statistics in Psychology and Education*. Bombay: Vakila, Feffex and Simens Ltd.

## B. Sc PSYCHOLOGY

**SEMESTER: 2**

**Credit: 3**

**Code No: APSY2C04T**

### **PSYCHOLOGICAL STATISTICS**

#### **Module 1: Correlation**

Meaning, Karl Pearson's Coefficient of Correlation, Scatter Diagram, Calculation of Correlation From a 2-way table, Interpretation of Correlation Coefficient, Rank Correlation,

#### **Module 2: Regression.**

Regression, Regression Equation, Identifying the Regression Lines.

#### **Module 3: Multiple Correlation and Regression.**

Partial and Multiple Correlation Coefficients, Multiple Regression Equation, Interpretation of Multiple Regression Coefficients (three variable cases only).

#### **Module 4 :Basic Probability.**

Sets, Union, Intersection, Complement of Sets, Sample Space, Events, Classical, Frequency and Axiomatic Approaches to Probability, Addition and Multiplication Theorems, Independence of Events (Up-to three events).

#### **Module 5: Random Variables and Their Probability Distributions.**

Discrete and Continuous Random Variables, Probability Mass Function, Distribution Function of a Discrete Random Variable.

#### **REFERENCES**

1. Gupta, S. P. (1988). *Statistical Methods*. Sultan Chand and Sons: New Delhi.
2. Gupta, S. C., & Kapoor, V. K. (2002). *Fundamentals of Applied Statistics*. New Delhi: Sultan Chand and Sons.
3. Garret, H. E., & Woodworth, R. S. (1996). *Statistics in Psychology and Education*. Bombay: Vakila, Feffex and Simens Ltd.

## B. Sc PSYCHOLOGY

**SEMESTER: 3**

**Credit: 3**

**Code No: APSY3C06T**

### PSYCHOLOGICAL STATISTICS

#### **Module 1: Distribution Theory.**

Binomial, Poisson and Normal Distributions, Mean and Variance (without derivations), Numerical Problems, Fitting, Importance of Normal Distribution, Central Limit Theorem.

#### **Module 2: Sampling Theory.**

Methods of Sampling, Random and Non-random Sampling, Simple Random Sampling, Stratified, Systematic and Cluster Sampling.

#### **Module 3: Testing of Hypotheses.**

Fundamentals of Testing, Type-I & Type-II Errors, Critical Region, Level of Significance, Power,  $p$ -value, Tests of Significance.

#### **Module 4 : Large Sample Tests**

Large Sample Tests – Test of a Single Mean, Equality of Two Means, Test of a Single Proportion, Equality of Two Proportions.

#### **Module 5: Small Sample Tests.**

Test of a Single Mean, Paired and Unpaired t-Test, Chi-Square Test of Variance, F-Test for the Equality of Variance, Tests of Correlation.

#### **References**

1. Gupta, S. P. (1988). *Statistical Methods*. Sultan Chand and Sons: New Delhi.
2. Gupta, S. C., & Kapoor, V. K. (2002). *Fundamentals of Applied Statistics*. New Delhi: Sultan Chand and Sons.
3. Garret, H. E., & Woodworth, R. S. (1996). *Statistics in Psychology and Education*. Bombay: Vakila, Feffex and Simens Ltd.



## B. Sc PSYCHOLOGY

**SEMESTER: 4**

**Credit: 3**

**Code No: APSY4C08T**

### PSYCHOLOGICAL STATISTICS

**Module 1: Chi-square Tests.**

Chi-square Test of Goodness of Fit, Test of Independence of Attributes, Test of Homogeneity of Proportions.

**Module 2: Non-Parametric Tests.**

Sign Test, Wilcoxon's Signed Rank Test, Wilcoxon's Rank Sum Test, Run Test.

**Module 3: Analysis of Variance.**

One-way and Two-way Classification with Single Observation Per Cell, Critical Difference.

**Module 4:**

Preparation of Questionnaire, Scores and Scales of Measurement, Reliability and Validity of Test Scores.

**Module 5:**

Logistic regression, Krushkal-Wallis Test, Fisher's exact test- concepts.

#### REFERENCES

1. Gupta, S. P. (1988). *Statistical Methods*. Sultan Chand and Sons: New Delhi.
2. Gupta, S. C., & Kapoor, V. K. (2002). *Fundamentals of Applied Statistics*. New Delhi: Sultan Chand and Sons.
3. Garret, H. E., & Woodworth, R. S. (1996). *Statistics in Psychology and Education*. Bombay: Vakila, Feffex and Simens Ltd.