

ARTS FACULTY

Subject : Psychology (M.A. Semester I)

No.	Core/ Elective /Ict.	Name of Course	Credits	IM	EM	TM	Course/ Paper Code
M.A. Semester - I							
1	CCT-01	Practical - Psychology (only for regular students) OR Advanced Experimental Psychology (Theory) (only for external students)	04	30	70	100	
2	CCT-02	Research Methodology	04	30	70	100	
3	CCT-03	Advanced Social Psychology-I	04	30	70	100	
4	ECT-01	Health Psychology-I OR Cognitive Psychology-I	04	30	70	100	
5	ECT-02	Psychology of Emotion-I OR Advanced Physiological Psychology	04	30	70	100	
		Total	20			500	

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : **Practical Psychology / CCT-01**

(only for regular students)

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	I	Core	CCT-01	Practical Psychology	04	00	100	100	

Course Objective :

To acquaint students with the procedure of conducting experiments on various subjects of psychology. (Only for regular students)

Any five experiments from the following are to be performed and reported in Journal:

1. Speed of learning as a function of meaningfulness of material.
2. Bilateral transfer of training.
3. Effect of reward & punishment on learning.
4. Retroactive inhibition.
5. Retention as a function of time: Study of retention curve.
6. Problem solving.
7. Study of learning curve: Human Maze Learning.
8. Efficiency of Massed V/s. Distributed practice in learning.
9. Transfer of training in Maze Learning
10. Habit interference
11. Effect of knowledge on performance on ergo graph
12. Brightness constancy
13. Size constancy.
14. Zeigarnik Effect

Reference Book :

- D'Amato, M.R: Experimental Psychology: Methodology, (1970): Psycho-Physic & Learning, New York: McGraw Hill

- Garret, H.E (1951): Great Experiments in Psychology, New York: Appleton-Century Crafts, Inc Third Edition
- Kuppaswami, B. (1954) Elementary Experiments in Psychology, Madras: Oxford University Press
- Postman, Leo & Egan, James P. (1949) Experimental Psychology: An Introduction, N.Y: Harper & Row
- Underwood, Benton, J. (1963): Experimental: An Introduction, Bombay, The Times of India Press
- Woodworth, Robert S. & Schlosberg, Harold (1971); Experimental Psychology, Calcutta: Oxford & JBH Publishing Co.

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : **Advanced Experimental Psychology / CCT-01**
(only for external students)

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	1	Core	CCT-01	Advanced Experimental Psychology	04	00	100	100	

Course Objective :

This course should help students :

1. Understand the rationale, strengths and limitations of the experimental method of gaining knowledge about mental and behavioural processes; learn how to do experimental and non-experimental studies.
2. Know how to use the various methods used in experimental psychology, including those for humans, both instrument and non-instrument based.
3. Learn to use psychology and other information sources.
4. Know how to apply APA ethical guidelines in research with human and animals.

*(only for external students)

Unit-1 Nature of Scope of Experimental Psychology and Motivation

Nature and Scope of Experimental Psychology : Basic concept of experimental including characteristics - gains and limitations - Types of variables and control method of experiment

Motivation : Definitional problems - Role of motivation in learning experimental - Operations influencing motivation - Ego involvement

Unit-2 Conflict and Frustration

Conflict : Definition of conflict - How can we do the experimental study? - How can we measure the experimental conflict?

Frustration : Methods used produce frustration - Major responses - To frustration - Methods of response measurement and analysis stimulus variable influencing responses to frustration

Unit-3 Instrumental Adverse Conditioning (D'Amato) and Operant Condition

Instrumental Adverse Conditioning (D'Amato) : Comparison of positive and negative reinforcement - Escape conditioning - Punishment - Training - Avoidance conditioning - Two factors

Operant Condition : Schedules of reinforcement - Simple and other schedules of reinforcement (fixed ratio variable interval) - Free operant avoidance schedule compound schedule, sequential, chained, mixed multiple simultaneous - Alternative, conductive and concurrent schedules.

Unit-4 Classification of Experimental Design and Audition

Classification of Experimental Design : Simple classification of design - Methods - Counterbalanced - Design - Random groups and systematic of conditions.

Audition : Physical basis of audition - Physiological basis of audition - Psychological problems of audition - Some phenomena of audition - Auditory location

Reference Book :

- Bention J. - Underwood Experimental Psychology - An Introduction
- D'Amato M.R. - Experimental Psycho Physical and Learning
- Gould J.E. - Concise Handbook of Experimental Methods for the Behavioral and Biological Sciences
- સી.ટી. ભોપટકર - પ્રાયોગિક મનોવિજ્ઞાન
- પ્રા.એન.એસ. પાઠક - પ્રગત પ્રાયોગિક મનોવિજ્ઞાન : સૈધ્ધાંતિક
- ડો.આઈ.ડી. ગુજરાતી - પ્રગત પ્રાયોગિક મનોવિજ્ઞાન : (થિયરી)
- વિમલ ત્રિવેદી - સમાજ વિજ્ઞાનમાં કોમ્પ્યુટરનો વિનિયોગ

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : **Research Methodology / CCT-02**

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	1	Core	CCT-02	Research Methodology	04	30	70	100	

Course Objective :

1. Provide students with the fundamental knowledge of research methods and design used in psychology.
2. Facilitate students understanding for how using valid scientific methods can improve and create knowledge in the field of psychology.
3. Guide and mentor students in developing, completing, writing and presenting a valid and ethical psychology experiment.

Unit-1 What is Research and Selecting the Research Problem

What is Research ? Meaning of Research - Types of Research - Steps of Research Process - Importance of Knowledge of Research - Research Methods Vs Methodology - Criteria of Good Research - Problems Encountered by Research in India

Selecting the Research Problem :- Definition the problem - Technique involved in defining problem - Meaning of variables - Types of variables - Meaning of hypotheses - Types of hypotheses - Suggestion or consideration for hypotheses construction

Unit-2 Meaning of Research Design and Sampling

Meaning of Research Design : Meaning of research design - Criteria of a scientific research design - Types of research design - Experimental design - Advantages and disadvantages of experimental design.

Sampling : Census method or parametric method - Sampling method or non-parametric methods - Meaning of sample and sampling - Purpose of sampling - Design

Distinction Between Population and Sample : Steps in sampling design - Criteria of good sample design - Advantages and disadvantages of sampling - Types of sampling - Limitation / Errors in sampling

Unit-3 Data Collection and Field Study or Field Research

Data Collection : Meaning of data - Types of sources of data - Observation method - Meaning and types of observation - Rating scale - Checklist rating scale - Questionnaire - Types of questionnaire - Steps in the process of interview - Errors in interview - Psychological test

Field study or Field Research : Differences between field study and survey - Differences between field study and experimental study - Types of field study - Limitations of field study - Experimental research - Laboratory experiment - Comparison between experiment and field experiment

Unit-4 Research Report and Computer Technology

Research Report : Meaning of interpretation - Precautions in interpretation - Meaning of research report - Main purposes of research report - Need of research report - Steps of research report - Probable mistake in preparing research reports

Computer Technology : Some important computer characteristics - Use of computer in research - The main factors of computer in research

Reference Book :

- Schweigert, W.A. - Research Methods in Psychology
- Selltitz C; Jahoda M. - Research Methods in Social Relation
- D'Amato, M.R. - Experimental Psychology
- Anatasi A. - Psychological Testing
- Festing and Katz - Research Methods in the Behaviour Sciences
- C.R. Kothari - Research Methodology - Methods and Techniques
- એ.એન. દેસાઈ – સામાજિક સંશોધન પદ્ધતિઓ
- વિમલ ત્રિવેદી – સમાજ વિજ્ઞાનમાં કોમ્પ્યુટરનો વિનિયોગ

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : **Advanced Social Psychology-I / CCT-03**

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	I	Core	CCT-03	Advanced Social Psychology-I	04	30	70	100	

Course Objective :

1. To help students to develop an understanding about one's self, how people think about, influence and relate to one another.
2. To orient them to the dynamics of attraction, love and aggression and application of the principles of social psychology in different fields.

Unit-1 Nature of social Psychology :

- Introduction - Definition of social psychology - Relation of social psychology with general psychology - Relation of social psychology with sociology and - Relation of social psychology with cultural anthropology. - Scope of social psychology - Importance of social psychology (utility)

Unit-2 Methods of Social Psychology :

- Psychological experimentation - Interview methods - Questionnaire methods - Survey method - Socio-metric method

Unit-3 Attitude :

- Introduction - Definition of attitude - Nature (Characteristics) of attitude - Attitude development - Change in attitude - Measurement of attitude (method of summated rating by Lippitt and social distance scale by Bogardus)

Unit-4 Leadership :

- Introduction - Meaning of leader and leadership - Definition of leadership - Functions of leader - Types of leader - Theories of leadership

Reference Book :

- Baron, Robert, A. and Byrne, D. (2001). Social psychology (8th ed.) Reprint, New Delhi, Prentice Hall of India Pvt. Ltd.
- Brehm, S.S. and Kassin, S.N. (1996). Social Psychology (3rd ed.) USA : Houghton Mifflin Company.
- Crisp, R.J. and Turner, R.N. (2007). Essential Social Psychology. New Delhi : Sage Publications.
- Myers, D.G. (2002). Social Psychology (7th International edition) New York : McGraw Hill Companies.
- Dr.B.A. Parikh. Advanced Social Psychology.
- Dr. I.D. Gujarati. Social Psychology.

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : **Health Psychology / ECT-01**

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	I	Elective	ECT-01	Health Psychology-I	04	30	70	100	

Course Objective :

To acquaint students with

1. Health behavior, health habits
2. Health enhancing behavior
3. Advancing and terminal illness

Unit-1 Definition of Health Psychology - The Mind - Body Relationship - The Bio-psycho-social Model in Health Psychology.

Introduction to Health Behaviour : Role of Behavioural Factors in Disease and Disorder- What are Health Behaviours? - Practicing and Changing Health Behaviours - Barriers to Modifying Poor Health Behaviours - Intervening with Children and Adolescents - Interventions with At-Risk People - Health Promotion and the Elderly.

Changing Health Habits : Attitude Change and Health Behaviour - The Theory of Planned Behaviour.

Cognitive Behavioural Approaches to Health Behaviour Change : Self-Observation and Self-Monitoring - Classical Conditioning - Operant Conditioning - Modeling - Stimulus Control - The Self-Control of Behaviour-Broad-Spectrum - Cognitive Behaviour Therapy.

Venues for Health-Habit Modification : The Private Therapist's Office - The Health Practitioner's Office - The Family Managed Care Facilities - Self-help Groups - Schools-Work-Site Interventions -Community-based Interventions - The Mass Media.

Unit-2 **Stress and Coping :** What is Stress? - Theoretical Contributions to the Study of Stress - What Makes Events Stressful? - Stress and Illness - Coping with Stress - Social Support - The Management of Stress.

Unit-3 Heart Disease, Hypertension, Stroke and Diabetes : What is CHD?- Role of Stress - How is Hypertension Measured ?

What Causes Hypertension? - Relationship Between Stress and Hypertension - Psychosocial Factors and Hypertension - Treatment of Hypertension - Problems in Treating Hypertension.

Risk Factors for Stroke - Consequences of Strokes - Types of Rehabilitative Interventions.

Types of Diabetes - Health Implications of Diabetes - Problems in Self-management of Diabetes - Interventions with Diabetics.

Unit-4 Health-Enhancing Behaviours : Benefits of Exercise - Determinants of Regular Exercise - Characteristics of Interventions.

Accident Prevention : Home and Workplace Accidents - Motorcycle and Automobile Accidents.

Maintaining a Healthy Diet : Why is Diet Important? - Resistance to Modifying Diet - Interventions to Modify Diet.

Weight Control : The Regulation of Eating- Why Obesity is a Health Risk - Obesity in Childhood - Factors Associated with Obesity - Stress and Eating - Treatment of Obesity.

Sleep : What is Sleep ? - Sleep and Health - Apnea.

Health-Compromising Behaviours : Characteristics of Health-Compromising Behaviours - Alcoholism and Problem Drinking - Smoking - Synergistic Effects of Smoking - A Brief History of the Smoking Problem - Why Do People Smoke?

Reference Book :

- Linda Branon and Jess Feist : Introduction to Health Psychology, Thomson : Indian Edition, 2007
- Shelley E. Taylor: Health Psychology , Tata McGraw Hill Seventh Edition.

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : **Cognitive Psychology / ECT-01**

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	I	Elective	ECT-01	Cognitive Psychology-I	04	30	70	100	

Course Objective :

1. To provide students with a general overview of research on human cognitive abilities
2. To expose students to recent findings and ideas concerning the neural bases of cognitive functions, particularly to those provided by neuropsychology and functional neuroimaging research.
3. To train students in reading original articles in experimental cognitive psychology

Unit-1 What is Cognition ? - Definition of Cognitive Psychology - Properties of Cognitive Process - A Brief History of Cognitive Psychology - Approaches of Cognitive Psychology.

Scope or Domain of Cognitive Psychology - Methods of Cognitive Psychology - Ecological Validity.

Unit-2 Meaning and Characteristics of Attention - Arousal and Information Processing - Distraction of Attention - Types of Attention - Determinants of Attention.

Nature of Selective Attention - Theories or Models of Selective Attention - Nature of Sustained Attention - Determinants of Sustained Attention - Theories of Sustained Attention - Current Status of Theories of Sustained Attention.

Unit-3 Meaning and Nature of Sensation - Does Pure Sensation Occur ? - Attributes of Sensation - Structure and Function of Human eye - Comparison of Human eye with a Photo Camera - Structure and Function of Human ear.

Nature of Perception - Major Approaches of Theories of Perception - Gestalt Approach or Theory-Directive State Theory - Physiological Approach or Theory of Perception - Gibsonian Approach - Information Processing Approach - Behavioristic Approach or Behavioristic Theory - Is Perceptual Organization Innate or Acquired? Extrasensory Perception - Subliminal Perception - Pictorial Perception - Perceptual Constancy - Stability - Instability Pardon - Some Important Generalization about Constancy - Time Perception : Fourth Dimension - Pattern Recognition : Bottom up and Top Down Approach - Perceptual Learning - Ames' Transactional Approach - Perception of Distance and Depth

Unit-4 Meaning and Nature of Learning - Role of Motivation in Learning - Methods of Learning - Classical Conditioning: Parading and Phenomenon - Nature and Types of Instrumental Conditioning - Difference between Pavlovian Condition and Instrumental Conditioning - Cognitive Learning

Theories of Learning - Thorndike's Theory of Connectionism - Skinner's Theory - Hull's Theory - Tolman's Theory - A Comparative Study of Hull and Tolman - Outline's Theory - Insight Theory - Cybernetic Model of Learning - Some Applied Aspects of Learning - Learning to Learn - Transfer of Training or Learning - Transfer Design, Learning Curve - Meaning of Programmed Learning - Skinner's Viewpoints Towards Programmed Learning - Is Programmed Learning Effective ? - Computer Assisted Instruction or CAI - Personalized System of Instruction of PSI - Probability Learning or PL - Verbal Learning

Reference Book :

- Antonio R. Damasio (1994). Reprinted (2005). Descartes' Error: Emotion, Reason and the Human Brain, Penguin Book. ISBN: 014303622X.
- Banich, Marie T. (2004). Cognitive Neuroscience and Neuropsychology. Houston Mifflin Company. ISBN: 0618122109.
- Jogsan, Y.A. & Jayesh N. Bhalala (2014). Cognitive Psychology, Akshar Publication, Ahmedabad.
- Solso, MacLin & MacLin (2005). Cognitive Psychology (7th ed.). Allyn & Bacon.

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : **Psychology of Emotion-I / ECT-02**

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	I	Elective	ECT-02	Psychology of Emotion-I	04	30	70	100	

Course Objective :

1. The course aims at understanding the basic issues and state-of the art knowledge in the field of emotions.
2. To acquaint students to the neurophysiological bases of emotion.
3. It seeks to promote an understanding of bodily changes in emotion and measurements of emotions.

Unit-1 Basic Issue in the Study of Emotions:

Definition of Emotion, Components of Emotion-Cognitive, Physiological and Behavioural; Categories of Emotion - Primary and Secondary Emotions - Fear and Anxiety, Anger, Jealousy and Envy, Guilt, Grief, Sadness, Happiness and Love; The Role of Positive Emotions - The Broaden and - Build Theory of Positive Emotion; Approaches to Emotion - Biological, Cognitive, Behavioral and Phenomenological; Functions of Emotion; Emotion as Basis of Social Relationship, Gender and Emotion.

Unit-2 Physiological Bases of Emotion:

Methods to Study Physiological Bases of Emotion, A Short Introduction to Nervous System, Central Mechanisms and Emotion - Spinal Cord, Medulla, Brainstem, Thalamus, Hypothalamus, Limbic System - Amygdala, Hippocampus, Cingulate Gyrus, Septum, Cortex and Frontal Lobes; Peripheral Mechanism - The role of Autonomous Nervous System; Neurochemistry and Emotion; Laterality and Emotion.

Unit-3 Bodily Changes in Emotions :

A Short Introduction to Cardiovascular, Respiratory, Digestive, Muscular and Hormonal Systems of Human Body; Short Term Bodily Changes in

Emotions - Changes in the Cardiovascular, the Respiratory, the Digestive, the Thermoregulatory, the Galvanic Skin Response and the Hormonal Systems, Changes in Muscle Tension; Hormonal Changes During Stressful Situations; Long term Bodily Changes in Emotion - General Adaption Syndrome (GAS), Psychogenic Ulcer and Some other Psychosomatic Diseases.

Unit-4 Measurement of Emotions :

Physiological Methods for Measuring Emotion, EEG, fMRI, PET, Lie detector; Measurement of Facial Expressions, Facial Action Coding System (FACS); Psychological Methods for Measuring Emotion-Verbal Self Report Measures of Affect, Semantic Differential Method-Rating scale, Questionnaire and Psychoanalytic Methods; Non Verbal Self-report Tool - Emotional Slider, Observation, Using Pictograms, Self Assessments Manikin, Projective Techniques etc. Advantages and Disadvantages of Physiological and Psychological Methods of Measurement. Some New Tools to Measure Subjective Feeling of Emotion - Geneva Emotion Wheel, Product Emotion Measuring Instrument (Pr.Emo).

Reference Book :

- Clarke, M.S. (1992). Emotion. New burry Park CA: Sage.
- Ekman, P. and Davidson, R.J. (1994). The Nature of Emotion. New York: Oxford University press.
- Kalat, J.K. & Shiota, M.N. (2007). Emotion. Belmont. C.A: Wadsworth.
- Lewis, M. & Haviland J.M. (1993). Hand Book of Emotions. New York: Guilford Press.
- Oatley, K., Ketner D. & Jenkins, J.M. (2006). Understanding emotions. Cambridge, M.A; Blackwell Publishers.
- Patel. M.K. (2008). Psychology of Emotion, Rajkot: Saurashtra University Press.
- Strongman, K.T. (1989). The Psychology of Emotion. London: Plenum.

FACULTY OF ARTS

SYLLABUS

Subject : PSYCHOLOGY

Course (Paper) Name & No. : Advanced Physiological Psychology ECT-02

Course (Paper) Unique Code :

External Exam Time Duration :

Name of Course	Semester	Core/Elective/ Allied/Practical/ Project	Course/ Paper code	Course/ Paper time	Credit	Internal Marks	External Marks	Total Exam Marks	External Exam Time duration
M.A.	I	Elective	ECT-02	Advanced Psychological Psychology-I	04	30	70	100	

Course Objective :

- To provide an understanding of neuro-physiological bases of behavior.
- To acquaint students with various complex biological processes related to cognitive and motivational aspects of behavior.

Unit-1 Introduction to Physiological Psychology, Nature and Scope; Methods to Study the Working Brain, ---generation Technique, Lesion Technique, Chemical Methods, Recording Electrical Activity in the ----, Neuroimaging, Functional Magnetic Resonance Imaging, Transcriptional Magnetic Stimulation ----, C.T Scan, PET and fMRI Scans.

Physiological Psychology and Neuroscience: Basic neuroanatomy-Structure, Types and Functions of ----urons, Nervous System Structure, Functions and Divisions-Central Nervous System, Peripheral ---rvous System and Autonomous Nervous System; Neural Conduction and Synaptic Transmission, ---urotransmitters.

Unit-2 The Hemisphere of the Neocortex: The Evolution of Functional Asymmetry-Surgical Studies of ---ymmetry Behavioral Studies of Asymmetry; Capabilities of Right Hemisphere the Linguistic ---ential of the Right Hemisphere-Spatial Skills of the Right Hemisphere Apraxia And Right ---mispheric Damage-Right Hemisphere and the Language of Emotionality; Variations in the ---eralization of Language - Bilingualism and the Lateralization of Language.

Unit-3 Brain Chemistry, Drugs and Mental Illness; Brain Metabolism - Blood-Brain Barrier, Neurotransmitters in the Brains - Acetylcholine,

Norepinephrine, Dopamine, Serotonin; Ammo ----- Neurotransmitters- Glutamic Acid Aspartic Acid, Glycine, GABA; Neuropeptides, Opioid Peptides and Receptors in the Brains, Brain Chemistry and the Use of Psychiatric Drugs-Antipsychotic -----Antidepressant Drugs, Anti-Anxiety Drugs; Alcohol and Its Effects in the Brain.

Unit-4 The Sensory System: Vision-Stimulus and Anatomy, Structure of Retina and its Photochemistry-----Translation of Light into Neural Signals, Cortical Mechanism of Vision, Colour Vision Theory Audition - Stimulus and Anatomy, Auditory Hair Cells and the Transduction of Auditory Information Auditory Pathway, Auditory Nerve and Auditory Cortex, Theories of Audition; Kinesthetic Vestibular Sensation, Kinesthesia: Muscle, Tendon, Joint Sensitivities; Vestibular Sense, Anatomy-----and Function of Non-auditory Inner Ear.

Reference Book :

- Levinthal, C.F. (2005). Introduction to Physiological Psychology. New Delhi: Prentice Hall of India Pvt.
- Carlson, N.R. (2000). Physiology of Behavior. Boston Allyn & Bacon.
- Pinel, J.P.J. (2000). Bio Psychology. Boston Allyn & Bacon.
- Kalat, J.W. (2004). Biological Psychology (8th Edition) Belmont: Wadsworth Thompson Learning.
- Kandel, E.R, Schwartz, J.H. & Jassel, T.M. (2000). Principles of Neural Science (4th Ed). New York: McGraw Hill.
- Goldstein, E.B. (2013). Sensation and Perception. Belmont: Wadsworth/Thompson Learning.
- Kolb, B & Whishaw, I.Q.C. (2012) An Introduction to Brain and Behavior (4th ed). New York: Worth Publishers.