OVERALL LEARNING OBJECTIVE

Psychology 1001 & 1002 are intended to be a general introduction to the main topics and methods of psychology and to serve both as a basis for advanced work and as a general overview of the subject for those not proceeding further with it. Information about 1001 can be found in the 1001 handbook.

PSYCHOLOGY 1002

(SEMESTER 2)

UNIT 1

Learning

1. Basics of Classical conditioning: Introduction to course; use of animals; definition of learning. Basic procedures and terminology; second order conditioning; extinction and spontaneous recovery.

2. Basics of instrumental conditioning: Procedures; distinction between IC and CC. Operant and discrete trial examples; learning curves; extinction.

3. Discrimination and generalization: Stimulus generalization - gradients; generalization of extinction. Discrimination-procedures and results; effect on generalization.

4. Distinction between two types of conditioning - response systems: Learning in two R systems: Skeletal vs. visceral; voluntary vs. involuntary; procedures for distinction.

5. Learning under aversive control: Escape and active avoidance; punishment and passive avoidance. Two factor theory and fear.


References: Basic information about many of these topics may be found in the Psychology 1 textbook (see Ch.4). For a more detailed treatment, a textbook recommended both for the 2nd year course, P2111 (Learning, neuroscience and perception), and the 3rd year course, P3209 (Learning and motivation), will usually prove the most helpful:


Multiple copies of this and of older, but generally satisfactory, textbooks on learning can be found in the appropriate section of Fisher Undergraduate Library.

All these books provide a brief historical background to contemporary psychology of learning. A more detailed treatment is provided by:

Abnormal/Motivation
1. What is abnormal behaviour? Introduction to the classification of psychological disorders, DSM multiaxial classification system, criticisms of classification, models of psychopathology.

2. Focus on the Anxiety Disorders: The distinction between fear and anxiety, components of the anxiety response and desynchrony, basic distinctions among anxiety disorders, the relation of two-factor theory to behavioural treatment of Obsessive-Compulsive Disorder.

3. Focus on Addiction: Addictive processes; the addictive agents and their effects; sociocultural, psychological and biological variables related to substance abuse and dependence.

4. Basic motivational processes: Physiological needs; basic motivational mechanisms; ethological models of behaviour; behavioural analyses of fixed action patterns - imprinting, critical periods; open and closed systems of behaviour.

5. Need based motivation: Drive approach to motivation, primary and secondary sources of drive; sensory reinforcement; reinforcement theories of motivation; social needs.

6. Incentive motivation: Goals and rewards as motivational mechanisms; hedonic theory; the application of incentive motivation to human behaviour.

7. Maslow's hierarchy of human needs. McClelland's theory; the acquisition of the need for power, affiliation, achievement.

References:


UNIT 2

Human Development
1. Introduction to Human Development and its research methods: Naturalistic Methods; Cross-sectional/longitudinal; Experimental/ correlational.

2. Genetic contributions to development: Introduction to Mendelian genetics; meiosis and mitosis; dominant and recessive traits and disorders; chromosomal effects; twin studies.

3. Prenatal development: Normal development; factors causing abnormality (teratogenic agents etc.).

4. Postnatal development (i): Language development; stages of phonetic, syntactic and semantic development; Theories of language development.

References:
Note: Earlier editions would also be appropriate


Visual Perception

1. Introduction: The study of Perception; stimulus properties; absolute and relative judgements; measurement in Perception. The functions of perception; cortical pathways and the "what" and "where" functions.

2. Depth Perception: Monocular cues to depth (e.g. linear perspective, texture gradients, elevation, interposition, motion parallax); binocular retinal disparity as a depth cue; ocular mechanisms as depth cues (accommodation and convergence) to judgements of absolute and relative distance. The relationship between size and distance perception: size constancy; size distance scaling theory.


4. Perception and physiology: Consciousness and behaviour; neurological and behavioural evidence. "Feature Detectors" in the Visual System: The concept of feature detectors; the receptive-field concept; Kuffler's work; the work of Hubel and Wiesel, examples of feature detector explanations of some visual phenomena.

5. The Role of Experience in Perception: Perceptual capabilities of young organisms; depth perception; motion perception, etc.; effects of restricted environmental stimulation on the development of the visual system; critical periods in visual development.

6. Colour Vision: The nature of light: hue, saturation and brightness and their physical correlates; sensitivity of rod and cone mechanisms; colour coding; the Young-Helmholtz Trichromatic Theory; Hering's opponent processes theory of colour vision; recent evidence related to colour coding mechanisms.

References:


UNIT 3

Cognitive Processes

1. Memory. The short-term and long-term memory distinction: differences in capacity; maintenance of information; coding differences; memory loss due to decay vs. interference; physiological evidence for a distinction. Criticisms of the separate store concept. Levels of processing: the concepts of depth and elaboration; experimental evidence. Constructive and reconstructive memory; schema theory; Bartlett's and Bransford's studies; eyewitness memory; inferences and reading comprehension. Mnemonic systems: the methods of loci, rhymes and digit-symbols.


References:


Human Mental Abilities


6. Group Differences in Cognitive Abilities. A particular emphasis will be on gender differences in cognitive abilities. Racial, age and socio-economic status differences will be mentioned very briefly.

7. Focus of Recent Work: Cognitive Psychology and Biology of Intelligence. Brief introduction to the work of cognitive psychologists (e.g. Hunt) who are interested in individual differences. Recent studies of the relationship between intelligence test performance and brain processes (electrical activity and glucose metabolism).

References: