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.

PSYCHOLOGY 1002

(SEMESTER 2)

UNIT I

Human Development
1. Research methods in developmental study: Cross-sectional/longitudinal; Experimental/correlational.
2. Behaviour genetics: Introduction to Mendelian genetics; meiosis and mitosis; dominant and recessive traits; chromosomal effects; twin studies.
3. Pre-natal development: Normal development; factors causing abnormality (teratogenic agents etc).

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:

UNIT 2

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 most of these topics may be found in the Psychology 1 textbook. For a more detailed treatment the textbook used in the Learning component of Psychology 2 will usually prove to be most helpful:


Other texts which are useful on some of the topics e.g. partial reinforcement, are:


The historical background to current studies of learning is discussed in Chapter 2 of Schwartz (1989), while a much more detailed treatment is provided by:


Motivation/Abnormal

1. 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.

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

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

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

5. Human emotion: Theories of emotions, the nature and variety of basic human emotions, facial expressions, individual differences in emotional experience, positive and negative affectivity.

6. Anxiety and phobias: 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 phobias.

7. Addiction: Nature of addictive behaviour; learned factors in addiction; social and cognitive aspects.

References:


UNIT 3

Visual Perception
1. Introduction: The study of Perception; stimulus properties; absolute and relative judgements; measurement in Perception.

2. Colour Vision: The nature of light; hue, saturation and brightness and their physical correlates; radiometric and photometric units; 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.

3. Depth Perception: Monocular cues to depth: linear perspective, texture gradients, elevation, interposition, clarity and aerial perspective, motion parallax; binocular retinal disparity as a depth cue; the size-distance invariance hypothesis; ocular mechanisms as depth cues: accommodation and convergence cues to judgements of absolute and relative distance; depth cues and size constancy.


5. "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; the meaning of the term spatial frequency; form and meaning.

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

References:


Cognitive Processes
1. Memory. The short-term and long-term memory distinction: differences in capacity; maintenance of information; coding differences; 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: