OVERALL LEARNING OBJECTIVE OF PSYCHOLOGY 1

Psychology 1001 & 1002 together 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 SYLLABUS

PERCEPTION
1. Introduction to visual perception; Why study vision? How does perception relate to psychology?
2. Visual Input and Photo-Receptors: Light waves and eyes, light amplitude and frequency, the visible spectrum, transduction; photo-receptors; rods and cones; the Purkinje Shift; the retina, fovea and optic nerve.
3. The processes underlying colour vision: the visible spectrum; 'Trichromatic Theory' of colour vision; Red-Green colour blindness; 'Opponent-Process Theory' of colour vision; coloured afterimages.
4. Neurophysiology of Vision: Retinal Ganglion cells; receptive fields; X and Y-cells; The LGN, Magno and Parvo-cellular pathways; primary visual cortex; functional selectivity; simple, complex and hyper-complex cells; cortical blindness; extra-striate; functional modularity; and the Visual 'Binding' Problem.
5. Binocular Vision: Binocular Disparity; Crossed and Uncrossed Disparity; The Pulfrich Illusion; Monocular Depth cues.

References:

LEARNING
1. Simple behavioural processes: Introduction to course; use of animals; definition of learning. The reflex; Control systems; Habituation and Sensitisation.
2. Basics of Classical conditioning: Basic procedures and terminology; second order conditioning; extinction and spontaneous recovery.
3. Basics of instrumental conditioning: Procedures; distinction between IC and CC. Operant and discrete trial examples; learning curves; extinction.
5. Social learning: Early studies on observational learning; Imitation; Emulation and Modelling.
6. Learning and cognition: Stimulus-response models of learning; latent learning; cognitive models of learning.

References:
Basic information about many of these topics may be found in the Psychology 1 textbook. For a more detailed treatment, a textbook recommended for the Learning and Motivation course in both 2nd and 3rd year will usually prove the most helpful:

A more detailed treatment is provided by:
**MOTIVATION**
1. Biological motivational processes: Evolutionary psychology; Instincts; biological drives; Human instincts.
2. Incentive motivation: Hedonism and affect; Cognitive expectations and desires; Incentive learning; Controllability.
3. Long-term sources of motivation: Non-biological needs; Need for achievement; Need for growth.
4. Behavioural economics: Value and incentive in economics; Economic sources of motivation; Non-economic sources of motivation.

References:

**HUMAN MENTAL ABILITIES**
2. Psychometric Principles and Procedures. The concepts of test reliability; measurement error and validity; Test standardization and norms.
3. Major Tests of Intelligence: Stanford-Binet Intelligence Scale; Wechsler's scales (WISC and WAIS); Raven's Progressive Matrices test.
4. Psychometric Theories of Intelligence 1: General factor theory (C. Spearman); the theory of primary mental abilities (L. Thurstone).
5. Psychometric Theories of Intelligence 2: Guilford's theory; Hierarchical theories of Burt, Vernon and fluid and crystallized intelligence (R. Cattell and J.L. Horn).
6. Group Differences in Cognitive Abilities: Gender differences in cognitive abilities; Racial, age and socio-economic status differences.
7. 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:

**HUMAN DEVELOPMENT**
1. Introduction to Human Development and its research methods: Naturalistic Methods; Cross-sectional/longitudinal designs; Experimental/correlational designs.
2. Genetic contributions to development: Introduction to Mendelian genetics; Dominant and recessive traits and disorders; Chromosomal effects; Behaviour genetics.
3. Prenatal development: Normal development; Factors causing abnormality (teratogenic agents).
4. Language development: Stages of phonetic, syntactic and semantic development; Theories of language development.
References:

**COGNITIVE PROCESSES**
2. Limitations on cognitive processing: selective attention; attentional resources; automatic processing; attention and memory.
4. Encoding and retrieval in long-term memory: rehearsal; levels of processing; transfer appropriate processing.
5. The architecture of long-term memory: episodic and semantic memory; explicit and implicit memory. Network models of memory.

References:
Basic information about most of these topics can be found in the Psychology 1 textbook. More detailed coverage will be found in most textbooks on cognitive psychology. The textbook used in 2nd and 3rd year Cognition courses (PSYC 2113 and PSYC 3205) should be easily accessible and cover all topics:


**EMOTION**
1. Definition of emotion and discussion of the broad application of emotion research and theory to a wide range of psychological disciplines.
2. Overview of attempts to identify the components of emotion and construct models of emotional processing.
3. Knowing our emotions: the relationship between emotion, the experience of emotion, and self-knowledge about our emotions.
4. Communication of emotion through facial expressions. Evidence for and against the universality of basic human emotions through cross-cultural facial-expression research.
5. The primary emotions: Overview of research on basic emotions such as fear, happiness, anger, etc.
6. The secondary emotions: The role of social factors and theory-of-mind underlying emotions such as guilt, pride, empathy, etc. Overview of research on these secondary emotions.

References:
Basic information about some of these topics can be found in the Psychology 1 textbook. The disparate nature of the topic means that most emotion research is dealt with across other psychological disciplines. More references will be provided during the lectures, but the following provides a good overview of most areas of emotion research and theory, albeit a little out-of-date: