

ECAP4002 – Introduction to Biological and Cognitive Psychology.

Module Leader: Dr Stuart Jones.

Session Number	Topic	Content	Recommended Reading
1	Introduction to the module	Cognitive Psychology 1. History 2. Empiricism 3. Nativist 4. Structuralism 5. Functionalism	Sternberg, R. J., Sternberg, K & Mio, J. S. (2009). <i>Cognitive psychology</i> (6th Ed). Cengage Learning/Wadsworth.
2	Memory 1	Introduction to memory: 1. Short-term memory 2. Multi-store Model of Memory 3 Working Memory 4 – Theories of Forgetting.	Baddeley, A. (2012). Working memory: theories, models, and controversies. <i>Annual review of psychology</i> , 63, 1-29. Jonides, J., Lewis, R. L., Nee, D. E., Lustig, C. A., Berman, M. G., & Moore, K. S. (2008). The mind and brain of short-term memory. <i>Annu. Rev. Psychol.</i> , 59, 193-224.
3	Memory 2	Long-term Memory 1. Encoding 2. Procedural and Declarative Memory 3. Episodic and Semantic Memory 4. Eyewitness Testimony	Baddeley, A. D., Kopelman, M. D., & Wilson, B. A. (Eds.). (2003). <i>The handbook of memory disorders</i> . John Wiley & Sons.
4	Attention	Attention 1. Bottom Up and Top Down Theories 2. Broadbent's Filter Model 3. Triesman's Attenuation Model 4. Load theory 5. Automaticity	Broadbent, D. E. (1954). The role of auditory localization in attention and memory span. <i>Journal of Experimental Psychology</i> , 44, 51-55. Moray, N. (1959). Attention in dichotic listening: Affective cues and the influence of instructions. <i>Quarterly Journal of Experimental Psychology</i> , 11, 56-60.

			Treisman, A. (1964). Verbal cues, language and meaning in selective attention. <i>American Journal of Psychology</i> , 77, 206-209.
5	Perception	Perception 1. A direct theory of perception (bottom-up) - Gibson 2. A constructivist (indirect) theory of perception (top down) – Gregory	Wagemans, J., Elder, J. H., Kubovy, M., Palmer, S. E., Peterson, M. A., Singh, M., & von der Heydt, R. (2012). A century of Gestalt psychology in visual perception: I. Perceptual grouping and figure–ground organization. <i>Psychological bulletin</i> , 138(6), 1172.
6	Introduction to Biological Psychology	Introduction to Biological Psychology. ● Biological Explanations of Behaviour ● Links between Biological and other explanations of behaviour ● The Brain and Conscious Experience	Kalat, J. (2007). <i>Biological Psychology</i> (9th ed.). Wadsworth
7	Neurons	Neurons ● The Nervous System ● Structure of Neurons ● Synapse ● Function ● Types of Neurons	Gazzaniga, M., Heatherton, T., & Halpern, D. (2016). <i>Psychological science</i> (5th edition; international student ed.). W.W. Norton & Company
8	The Brain	The Brain. ● Anatomy ● Function of - Frontal Lobe - Temporal Lobe - Occipital Lobe - Parietal Lobe	Higgs, S., Cooper, A., Harris, M., & Lee, J. (2015). <i>Biological psychology</i> . SAGE.

		-Brain Stem ● Introduction to Split Brain studies	
9	Language and the Brain	Language ● Definition of Language ● Definition of Aphasia ● Neuropsychology of Language ● Broca and Wernicke ● Wernicke/Geschwind Model of Language ● Non-Verbal Communication.	Blank, S. C., Scott, S. K., Murphy, K., Warburton, E., & Wise, R. J. (2002). Speech production: Wernicke, Broca and beyond. <i>Brain</i> , 125(8), 1829-1838.
10	Biological Basis of Emotions and Aggression	Emotions ● How many emotions? ● Defining what is an emotion. ● Characteristics of an emotion ● Biological Basis of Aggression.	Reif, A., Rösler, M., Freitag, C. M., Schneider, M., Eujen, A., Kissling, C., ... & Retz, W. (2007). Nature and nurture predispose to violent behavior: serotonergic genes and adverse childhood environment. <i>Neuropsychopharmacology</i> , 32(11), 2375-2383