

MODULE CODE: ECAP6004
TITLE: Biological and Cognitive Neuroscience
DATED: 26/04/2018

LEVEL: 6
CREDITS: 20

JACS CODE: C810

AIM(S)

- To enable students to critically evaluate the contribution new technologies have made to our understanding of human behaviour and cognition.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- demonstrate a critical understanding of conceptual and historical issues relating to Biological and Cognitive Psychology;
- demonstrating a critical understanding of how drugs and hormones influence brain activity and subsequent behaviours, examining empirical research involving neuroimaging techniques in this field;
- demonstrate a critical understanding of how approaches in Neuroscience have contributed to the development of the field of Cognitive Psychology (e.g. attention, the study of perception, learning, memory, thinking and language);
- take responsibility for their own learning and skill development; including effective personal planning, self-reflection and project management skills.

INDICATIVE CONTENT

- Examination of the dynamic development of biological and cognitive neuroscience in the last two decades.
- Examination of the benefits and limitations of evidence derived from neuroscientific research with particular reference to learning and cognition.
- Examination of the biological basis of behaviour and the impact of neuroimaging techniques in relation to the understanding in this field.
- Exploration of the impact neuroscientific research may have on traditional empirical evidence within Biological and Cognitive Psychology.
- Exploration of a range of approaches developed within neuroscience used to enhance our understanding of relating to disorders of attention, perception, learning, memory, thinking and language.

LEARNING AND TEACHING STRATEGY

Topics will be introduced in weekly lectures and consolidated through seminars which will vary in format from group exercises and discussions to small group exercises in order to further develop students' understanding of the principles and fundamental topic areas within biological and cognitive psychology.

The study time for the module is divided as follows:

Activity type	Hours	Percentage
Scheduled learning	30	15%
Independent learning	170	85%
Placement learning	0	0%
TOTAL	200	100%

ASSESSMENT

Assessment Component 1

☒ **Written exam** ☐ **Coursework** ☐ **Practical**

Mode of assessment	Volume	Weighting
Exam	2.5 hours	50%

Assessment Component 2

☐ **Written exam** ☐ **Coursework** ☒ **Practical**

Mode of assessment	Volume	Weighting
Individual Presentation	15 minutes	50%

Assessment Summary

Activity type	Percentage
Written exam	50%
Coursework	
Practical	50%
TOTAL	100%

This module is a core requirement for Graduate Basis for Chartership (GBC) accreditation with the British Psychological Society (BPS) as set out in documentation to the BPS February 2018.

READING LIST

Please note that at Level Six students will be expected to engage significantly with empirical journal articles in addition to the reading list below.

Module Code	ECAP6004	
Module Title	Biological and Cognitive Neuroscience	
Classification	Reading List entry	Electronic*
Essential	Bear, M., Connors, B., & Paradiso, M. (2016). <i>Neuroscience: Exploring the brain</i> (Fourth edition). Philadelphia : Wolters Kluwer	☐
Essential	Carlson, N. (2011). <i>Foundations of behavioral neuroscience</i> (8th ed.). Boston: Allyn & Bacon.	☐
Essential	Gazzaniga, M.S., Ivry, Richard B., & Mangun, G. R. (2014). <i>Cognitive neuroscience: The biology of the mind</i> (Fourth ed.). New York: Norton.	☐
Essential	Johnson, & De Haan. (2015). <i>Developmental cognitive neuroscience: An introduction</i> (Fourth ed.). West Sussex, UK; Malden, MA: John Wiley and Sons.	☐

Essential	Kemmerer, D. (2015). <i>Cognitive neuroscience of language</i> . Hove: Psychology Press.	☒
Essential	Purves, D. (2008). <i>Principles of cognitive neuroscience</i> . New York : Basingstoke:	☐
Essential	Yantis, S. (2013). <i>Sensation and perception</i> . New York : Worth	☐
Further	Breedlove, S., & Watson, N. (2013). <i>Biological psychology: An introduction to behavioral, cognitive, and clinical neuroscience</i> (Seventh ed.). Sunderland, Massachusetts: Sinauer Associates,	☐
Further	Fiske, S., & Taylor, S. (2010). <i>Social cognition: From brains to culture</i> . London: McGraw-Hill Higher Education.	☒
Further	Higgs, S., Cooper, A., Harris, M., & Lee, J. (2015). <i>Biological psychology</i> . Los Angeles: SAGE.	☒
Further	Kalat, J. (2007). <i>Biological Psychology</i> (9 th ed.). London: Wadsworth	☐
Further	Spear, L. (2010). <i>The behavioral neuroscience of adolescence</i> . New York: W. W. Norton.	☒
Journal	Biological psychiatry	☒
Journal	Biological psychology	☒
Journal	Brain research	☒
Journal	Cerebral cortex	☒
Journal	Cognitive neuroscience and neuroimaging	☒
Journal	Clinical neurophysiology	☒
Journal	Clinical neuroscience research	☒
Journal	Cognitive, affective, & behavioral neuroscience	☒
Journal	European journal of neuroscience	☒
Journal	Journal of cognitive neuroscience	☒
Journal	Journal of neuroscience methods	☒
Journal	Nature neuroscience	☒
Journal	NeuroImage	☒
Journal	Neuropsychologia	☒
Journal	Neuroscience	☒
Journal	Psychiatry research. Neuroimaging	☒
Journal	The open neuroimaging journal	☒