

Module Title	Thinking: Past, present, and future
Programme(s)/Course	BSc (Hons) Psychology, BSc (Hons) Psychology (Child Development), BSc (Hons) Psychology (Clinical), BSc (Hons) Psychology (Addiction Psychology), BSc (Hons) Psychology (Forensic Psychology), BSc (Hons) Psychology with Criminology, Graduate Diploma in Psychology
Level	6
Semester	2
Ref No:	
Credit Value	20 CAT Points
Student Study hours	Contact hours: 44 Student managed learning hours: 156
Pre-requisite learning	None
Co-requisites	None
Excluded combinations	None
Module Coordinator [Name + e mail address]	Dr Jamie Smith-Spark smithspj@lsbu.ac.uk
Parent Department	Psychology
Parent Course	BSc Psychology
Description [100 words max]	Cognitive Science is the scientific study of thought. This module provides students with the opportunity to explore some of the key theoretical debates in contemporary cognitive science, adopting a multidisciplinary approach to understanding the nature of thought and challenging assumptions concerning what it is to be human. The module will address the nature of the human mind in the past, present, and future, frequently using comparative psychology to identify those abilities that make us uniquely human and which mark us out from non-human animals and synthetic organisms.
JACS Code	C800
Aims	The module aims to: <ul style="list-style-type: none"> • Give an understanding of the origins of contemporary cognitive science • Present students with the opportunity to explore a selection of current research topics in cognitive science • Explore the development of the mind over evolutionary time • To gain a knowledge of how psychology underpins cybernetics and artificial intelligence • Give further tuition on the psychology of a selection of important cognitive abilities, such as representation, episodic memory, and executive functions • Provide an understanding of the interdisciplinary nature of the contemporary study of cognition • Explore individual differences in intelligence, both intra- and inter-

	species
Learning outcomes	<p>On successful completion of this module, students will be able to:</p> <p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Demonstrate a critical awareness and understanding of philosophical issues which underpin modern cognitive psychology <p>Critical thinking:</p> <ul style="list-style-type: none"> • Relate the knowledge base to other fields of study (e.g. philosophy, neuroscience etc) in order to demonstrate an understanding of how the concerns of cognitive science are played out in popular culture <p>Communication:</p> <ul style="list-style-type: none"> • Communicate clearly within a group to produce a poster.
Employability	<p>Successful students on this course will have demonstrated the ability to think flexibly; taking empirical knowledge and applying it to a variety of real world settings, this is achieved by explaining how psychological theory influences popular media. Additionally, these skills will be presented in a poster session which will involve group work. Being able to work as a member of a team is a key employability skill.</p> <p>Students completing this course will successfully demonstrate an understanding the nature of different styles of computation, the relationship of computation to thought, and the possibilities and limitations of the scientific understanding of cognition will prepare students for Graduate work in, for example, Cognitive Science and Cognitive Psychology, and for work in the IT and IT-related industries. Moreover, as psychologists, students will need to be able to argue effectively and to communicate in a precise and clear way. The assessments and discussion-based seminar activities will hone students' skills in these areas too.</p>
Teaching & Learning Pattern	11 x 4 hour learning and teaching sessions comprising a mixture of lecture and discussion-based seminar activities, using a variety of modes of delivery.
Indicative content	<p>Session 1: Setting the scene: the philosophy and history of cognitive science</p> <p>Session 2: Cognitive archaeology: understanding ancient minds</p> <p>Session 3: Mental time travel: episodic memory, episodic future planning, and auto-noetic consciousness in humans and animals</p> <p>Session 4: The extended mind: cognition and beliefs beyond the confines of the skull</p> <p>Session 5: Human error and human factors: how cognitive ergonomics can reduce the opportunity for (catastrophic) mistakes in everyday life</p> <p>Session 6: Cybernetic organisms and collective intelligence: cyborgs, distributed cognition, and swarm intelligence</p> <p>Session 7: Human and Animal intelligence</p> <p>Session 8: Cognitive architecture: symbolic and connectionist approaches to modelling the mind</p> <p>Session 9: Artificial intelligence</p> <p>Session 10: Consciousness</p> <p>Session 11: Bringing it all together</p>

Assessment method (Please give details – elements, weightings, sequence of elements, final component)	<ol style="list-style-type: none"> 1. 40% poster 500-word, group presentation 2. 60% 2-hour unseen written examination (final component)
Indicative Reading	<p>CORE READING:</p> <p>Baddeley, A. D., Aggleton, J., & Conway, M. (Eds., 2002). <i>Episodic memory: New directions in research</i>. Oxford: Oxford University Press.</p> <p>Bermúdez, J. L. (2010). <i>Cognitive Science: An introduction to the science of the mind</i>. Cambridge: Cambridge University Press.</p> <p>Coolidge, F. L., & Wynn, T. (2009). <i>The rise of Homo sapiens: The evolution of modern thinking</i>. Chichester, West Sussex: Wiley-Blackwell.</p> <p>Copeland, B. J. (1993). <i>Artificial intelligence: A philosophical introduction</i>. Oxford: Blackwell.</p> <p>Friedenberg, J., & Silverman, G. (2006). <i>Cognitive Science: An introduction to the study of mind</i>. Thousand Oaks, CA: Sage.</p> <p>Menary, R. (Ed., 2010). <i>The extended mind</i>. Cambridge, MA: MIT Press.</p> <p>Velmans, M. (2009). <i>Understanding consciousness</i> (2nd ed.). Hove, East Sussex: Routledge.</p> <p>OPTIONAL READING:</p> <p>McFarland, D. (2008). <i>Guilty dogs, happy robots</i>. Oxford: Oxford University Press.</p>
Other Learning Resource:	<p>Journals available on-line through the library such as:</p> <p>Behavioural Processes Brain and Cognition Cognitive Science Journal of Experimental Psychology: Animal Behavior Processes Journal of Human Evolution Learning and Motivation Science Trends in Cognitive Sciences</p> <p>Journal freely available online</p> <p>PalaeoAnthropology (http://www.paleoanthro.org/journal/contents_dynamic.asp)</p> <p>Useful websites</p> <p>http://plato.stanford.edu/ - The Stanford Encyclopaedia of Philosophy http://cognitivesciencesociety.org/index.html - The Cognitive Science Society http://consc.net/online - Online library of papers on consciousness</p>