UNIVERSITY OF CAMBRIDGE

Institute of Continuing Education

An Introduction to the Human Brain

Date	8 May 2016	**Time**	9.30 - 16.45
Venue	Madingley Hall Madingley Cambridge		
Academic Director	Lee de-Wit	**Course code**	1516NDX052

Director of Programmes	Emma Jennings
For further information on this course, please contact	Clare Kerr, Public Programmes Coordinator 01223 746237 clare.kerr@ice.cam.ac.uk
To book	See: www.ice.cam.ac.uk or telephone 01223 746262

Tutor biographies

Lee studied Experimental Psychology at the University of Bristol, and then an Economic and Research Council funded Masters (with Charles Fernyhough) and PhD (with David Milner FRS and Robert Kentridge) at Durham University. Lee then worked as a post-doctoral researcher at the University of Leuven working on the Gestalt Revision program of Johan Wagemans, on which he is now a co-PI. Lee has also spent time as a visiting researcher with Geraint Rees at the Institute of Cognitive Neuroscience (UCL), Glyn Humphreys at the University of Oxford, and Catherine Tallon-Baudry at the University Hospital Pitié-Salpêtrière in Paris. In addition to teaching at ICE, Lee is a Teaching Fellow at University College London.

Day school content:

The workings of the human brain remain one of the last true mysteries of science. How the firing of billions of neurons enables us to act, feel and think (let alone be conscious of doing so) is one of the most exciting and rapidly developing fields of science. This day school will provide an introduction into some of the major steps forward psychology has made in unlocking the mysteries of the human brain. We will focus on 3 major methods within the 'cognitive neurosciences', first the study of patients with brain damage (neuropsychology), second the use of neuroimaging techniques, and third the use of behavioural experiments. We will review some of the most famous patient case-studies in psychology, which have helped to shape our thinking on topics from 'how we remember our first cycle ride' to 'how we recognize our wife'. We will explore some of the most important work using 'single cell' recordings which provide a very direct insight into how neurons fire when we are performing different tasks. We will critically explore modern neuroimaging techniques which enable us to provide 'pictures' of what areas of the brain are active when performing different tasks. Finally we will explore how simple behavioural experiments can provide profound lessons regarding how our brains work.

Programme:

09:30	Terrace bar open for pre-course tea/ coffee
10:00 – 11:15	Famous case studies in psychology: including ‘the man who mistook his wife for a hat’
11:15	Coffee
11:45 – 13:00	Single cell recordings: from ‘place cells’ to ‘mirror neurons’
13:00	Lunch
14:00 – 15:15	Neuroimaging: measuring the brain
15:15	Tea
15:30 – 16:45	Behavioural research: how simple experiments can provide profound insights
16:45	Day school ends

Reading and resources list

Listed below are a number of texts that might be of interest for future reference, but do not need to be bought (or consulted) for the course.

Author	Title	Publisher and date
Oliver Sacks	*The Man Who Mistook His Wife for a Hat*	Simon and Schuster, 1998.
Francis Crick	*The Astonishing Hypothesis: The Scientific Search for the Soul*	Simon and Schuster, 1995.

Additional information

Venue

Details of how to find Madingley Hall can be found on our website:
http://www.ice.cam.ac.uk/who-we-are/how-to-find-the-institute

Refreshments

Tea and coffee and lunch will be provided. If you have any specific dietary requirements or allergies and have not already advised us, please inform our Admissions Team on ice.admissions@ice.cam.ac.uk or +44 (0)1223 746262.

Note Students of the Institute of Continuing Education are entitled to 20% discount on books published by Cambridge University Press (CUP) which are purchased at the Press bookshop, 1 Trinity Street, Cambridge (Mon-Sat 9am – 5:30pm, Sun 11am – 5pm). A letter or email confirming acceptance on to a current Institute course should be taken as evidence of enrolment.

Information correct as of: 05 April 2016