UNIVERSITY OF CAMBRIDGE

Institute of Continuing Education

Understand your brain: boost learning and memory

Start date	21st January 2017	**Time:**	10:00am – 16:45pm
Venue	Madingley Hall Madingley Cambridge		
Tutor	Ginny Smith	**Course code**	1617NDX021

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

Tutor biography

Ginny studied Natural Sciences at the University of Cambridge, covering everything from Chemistry to Evolution but specialising in Psychology and Neuroscience. Since graduating, she has had the opportunity to spread her love of science as a science communicator. As part of the *Naked Scientists* she regularly appears on BBC Radio 5 live as well as local and international radio stations. She presents the weekly science show 'Elemental Ideas' on Cambridge TV, and loves to perform her range of science shows in front of live audiences at schools and festivals, including Cambridge and Cheltenham Science Festivals. She also writes science articles for a general audience and is a regular author for DK's science books.

Course programme

09:30	Terrace bar open for pre-course tea/coffee
10:00 – 11:15	**Learning in the brain**
11:15	Coffee
11:45 – 13:00	**The psychology of memory**
13:00	Lunch
14:00 – 15:15	**Brain changes through the ages**
15:15	Tea
15:30 – 16:45	**Memory boosts – improving learning and memory**
16:45	Day-school ends

Course syllabus

Aims:

- Improve understanding of what the neuroscience and psychology of learning and memory can (and can't) tell us.
- Raise awareness of how the brain changes throughout life and how this affects our behaviour.
- Help develop strategies that can be used at home to improve learning & memory.

Content:

Research in Psychology and Neuroscience progresses rapidly; we discover more each day about how we learn and how our memories work. This day school will provide a guided tour through the brain, looking at the changes that occur on a cellular level when we learn new information or store a memory. We will examine the way the brain changes from child to teenager to adult, and how these affect the way we learn and remember information. By understanding more about the way memories are stored and recalled, we can explore different ways to help improve this process, at any stage of our lives.
Brain-based learning is a popular emerging field, but it is filled with misinformation. The course will tackle common misconceptions and look at ways in which we can use our understanding of the brain, as well as the tricks psychological research has uncovered, to help everyone learn more quickly and efficiently. We will finish with a practical session covering memory tricks and exercises anyone can use to learn and remember information more effectively.

Presentation of the course:

The course will take a practical, hands-on approach with activities the whole class can take part in to better understand how their memory works. Using quizzes and memory games, participants will go away with strategies they can apply to their own lives to help boost their memories.

As a result of the course, within the constraints of the time available, students should be able to:

- Know what happens in the brain when we learn.
- Recall what psychological studies have taught us about learning & memory, and their limits.
- Understand how the brain changes as we grow & age.
- Use this understanding to improve the efficiency of their learning & memory

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
Jill Price	*The Woman who Can't Forget*	Free Press 2009
Oliver Sacks	*Musicophilia (Chapter 15- Memory, Movement and Music)*	Random House 2008
Dean Burnett	*The Idiot Brain (Chapter 2- The gift of memory)*	Guardian Faber Publishing 2016

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.

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

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: 7th Nov 2016