Neuroscience: Understanding the Brain
A residential course for Year 12 A-level students

This course sets out to inspire and challenge you in a non-competitive environment, mixing with like-minded students from across the UK and tutored by two subject experts. Participation can be acknowledged under Preparation for HE on your UCAS application form.

Objectives
- To introduce students to areas such as the mechanisms of drug action and the structure and function of the brain and central nervous system
- To consider methods of studying the brain; neuroimaging; pain; memory neurobiology and amnesia; language disorders and the effects of brain damage

The course is intended for those students interested in an understanding of how the brain works and what happens when it is damaged. It will be of particular use and interest to those students intending to read Neuroscience, Medicine, Psychology or Biological Science at university.

Students must be studying Biology at A-level.

Format
The course will be delivered using a variety of methods, including lectures, presentations, class discussions, experimental work and computer-based sessions using specially written software. In addition, there will be a guest speaker and the opportunity to visit a brain imaging centre.

Please see the sample programme overleaf although the course content may change.

Tutors
Guy Sutton is Director of Medical Biology Interactive (MBI) and an Honorary Lecturer in Neuroscience at the University of Nottingham Medical School. He completed his first degree and PhD at the University of Cambridge.

Sophie Betka is a qualified Neuropsychologist, graduated from France. Passionate by research in Addictions, Sophie is now undertaking her final year of PhD at the Brighton and Sussex Medical School.

Details
Date: Monday 7 to Friday 11 May 2018
Venue: The Cambridge Centre at Villiers Park, Foxton
Ref: Neuroscience: Understanding the Brain – 18S024
Cost: £250 to include accommodation, meals, course materials (students at fee paying schools will need to pay the full cost of £700).

Please complete the application form and return to Villiers Park by Friday 23 February 2018
For more information contact us on 01223 872601 or vp@villierspark.org.uk
www.villierspark.org.uk

Registered Charity No. 225920
Neuroscience: Understanding the Brain
Monday 3 to Friday 7 April 2017

Monday
3 April
1.00: Arrivals
1.30: Lunch
2.15: Welcome and Introduction to Villiers Park
2.45: Introduction to Course
3.00: Mind and Brain in the 21st Century [GS]
4.15: The Ethics of Neuroscience and Artificial Intelligence [SB]
5.30-7.00: Neuroimaging in Conscious and Unconscious States [GS]
8.00: Introduction to Projects

Tuesday
4 April
9.15-10.45: Group 1: An Introduction to Functional Neuroanatomy [GS]
Group 2: Techniques in Affective Neuroscience 1 [SB]
11.15-12.45: Groups Change
2.00: Group 1: Brain Cells, Neurons and Neurotransmission [GS]
Group 2: Introduction to Neuropsychology [SB]
3.00: Groups change
4.00: Free time
5.00: Group 1: Genes and The Brain [GS]
Group 2: Techniques in Affective Neuroscience 2 [SB]
6.00-7.00: Groups Change
7.45: Preparation for Projects

Wednesday
5 April
9.15: Group 1: Philosophy of Mind [GS]
Group 2: The Addicted Brain [SB]
11.15-12.45: Groups Change
1.45: Depart for visit to the Whipple Museum, Cambridge
2.15: Tour and workshop at the Whipple Museum
4.45: Free Time in Cambridge
6.00: Depart for Villiers Park
7.45: Preparation for Projects

Thursday
6 April
9.15-10.45: Group 1: The Neurobiology of Mental Illness [GS]
Group 2: The Self: From Body to Mind [SB]
11.15-12.45: Groups Change
2.00-3.45: Project Preparation
4.15: Group 1: Comparative Neuroanatomy (Sheep Brain Dissection) [GS]
Group 2: What would be your PhD project? [SB]
5.45-7.00: Groups Change
7.45: Final Preparation for Presentations

Friday
7 April
9.15-10.45: Schizophrenia: Neuropathology, Neurogenetics and Epigenetics [GS]
11.00-1.00: Presentations
1.45: Presentations (continued) followed by
So You Want To Be A Neuroscientist…?
2.15: Course Evaluation
2.45: Departures

Tutors: GS is Guy Sutton, SB is Sophie Betka

Meals (unless otherwise stated):
Breakfast: 8.30am    Coffee: 10.45am    Lunch: 1.00pm    Dinner: 7.00pm