



**Interdisciplinary Cambridge Neuroscience
MPhil in Basic and Translational Neuroscience**

Course information
(extracts from the 2018-19 Handbook)

Course aims and learning outcomes

Course aims

The aims of this one-year, full-time research training course are as follows:

- to give the student experience of research work;
- to expose them to a variety of laboratory environments and the balance of self-sufficiency and teamwork needed in a researcher;
- to introduce them to the basic skills of experimental design, project management, time management etc. needed in research;
- to familiarise the student with the practicalities of laboratory research, imparting an understanding of the nature of bench research, of record keeping and data handling and of good laboratory practice;
- to introduce them to basic analytical techniques needed to understand and contextualise their research;
- to familiarise them with basic scientific writing and presentation skills.

The course also aims to:

- attract students from a wide range of backgrounds into neuroscience by providing a taught module with a basic overview of neuroscience;
- provide students thorough training in neuroscience methods, data analysis and statistics techniques;
- give students the necessary basic but broad understanding of neuroscience to prepare them for future PhD studies;
- provide students with adequate experience in neuroscience research to enable them to make an informed choice of PhD project if they so wish.

Learning outcomes

Upon successful completion of the MPhil course, students will have:

- developed a broad understanding of modern research techniques, and thorough knowledge of the literature, applicable to research in topics related to Neuroscience;
- been exposed to a number of theoretical approaches to brain science and trained in critical thinking in the area;
- acquired specific expertise in neuroscience research methods and statistics;
- demonstrated originality in the application of knowledge, together with a practical understanding of how research and enquiry are used to create and interpret knowledge in the field;
- acquired knowledge of a broad range of interdisciplinary research areas and supervisors to inform their choice of PhD projects if applicable;
- undertaken training in generic and transferable research skills including the critical evaluation of current research and research techniques and methodologies.

MPhil Programme Structure

The programme is administered from the Department of Physiology, Development and Neuroscience, but both taught components and lab rotations involve a wide range of participating departments.

The MPhil is a one-year full-time programme and involves both formal teaching and research: students are integrated into the research culture of at least one Department by joining a research group. In addition, they take research technique modules to broaden their experience of research techniques. They may attend the Departments' programme of research seminars and other graduate courses, but most research training is provided within the group structure and overseen by their research supervisors. Informal opportunities to develop research skills also exist through mentoring by fellow students and members of staff.

The MPhil begins with an induction period comprising generic courses organised by the Graduate School of Life Sciences (including safety, science ethics, keeping laboratory notebooks and intellectual property), and introductory lectures on aspects of Neuroscience followed by meetings with each of the participating supervisors in their laboratories. These meetings will form the basis of selection of one mini-project. In addition, the students will choose three shorter research training modules, spanning different aspects of Neuroscience, introducing a range of problems, experimental techniques and laboratory environments.

MPhil Research Projects

The MPhil includes a project in a laboratory of the student's choice, chosen from projects offered by *Cambridge Neuroscience* Principal Investigators - a list is issued to the students when they join. The write up for the project is formally assessed and forms 70% of the overall mark for the degree.

Extended Essay

A 5,000-word extended essay; The topic of the essay must be approved by the Programme Director and will form the basis of the portfolio of lectures and seminars which the student takes. Students wishing to continue to the PhD may seek approval to replace the essay with a research proposal for their chosen project. This essay forms 25% of the overall mark for the degree.

Research Methods and Statistics

1 Practical introduction to MATLAB Programming - compulsory

This 8-hour intensive course focuses on practical hands-on variable handling and programming implementation rather than on theory.

For timetable, please see Appendix 1 and for more information see Appendix 4

2 Statistical Methods for Biologists - compulsory

This 30-hour 'Statistics for Biologists' course will focus on practical statistics, teaching you how to perform simple analyses using the statistical package R. This module will be linked to an assessment that will form 5% of the overall mark for the degree.

For timetable, please see Appendix 1 and for more information see Appendix 4

3 Statistical Methods for Cognitive Psychologists – optional

This 9-hour lecture course will serve as an introduction to statistical methods for graduate students.

For timetable, please see Appendix 1 and for more information see Appendix 4

The first session is scheduled for Thursday 4th Oct 11:00-12:00 and is held in the Lecture Theatre, MRC Cognition and Brain Sciences Unit, University of Cambridge, Chaucer Road.

Cambridge Neuroscience themed seminars

Students receive a total of more than 20 hours of lectures, seminars and workshops on the five main themes of *Cambridge Neuroscience*; Developmental Neuroscience, Cellular and Molecular Neuroscience, Cognitive and Behavioural Neuroscience, Clinical and Veterinary Neuroscience, Systems and Computational Neuroscience. For timetable, see Appendix 1.

Workshops on Neuroscience Methods

Students may attend Part II Neuroscience Methods workshops. These are organised as one lecture presentation on a Thursday 3-4pm. Details provided when students join the course.

Research Training Modules

Students will choose *a minimum of three research training modules*, from a choice of nine modules. Students may complete (and indeed are encouraged) more than the minimum three research modules.

Some of these modules are already timetabled in conjunction with other courses and others will be specifically run for your group. For more information on each of the Research Modules see Appendix 5.

Interdisciplinary seminars and journal Clubs, Seminars

The *Cambridge Neuroscience* community collectively hosts ~350 talks and seminars per annum. Please see <http://www.neuroscience.cam.ac.uk/talks/> To sign up to receive email alerts about neuroscience seminars, or to add talks to the list, please visit <http://www.talks.cam.ac.uk> For more information, see Appendix 6.

MPhil Coursework and Evaluation

The MPhil is assessed in four ways:

1. A report on the research project, approved or prescribed by the Degree Committee, not exceeding 10,000 words in length, including tables, figure legends, and appendices, but excluding bibliography (70%). Submission deadline 1 August 2019.
2. A 5,000-word extended essay; The topic of the essay must be approved by the Programme Director and will form the basis of the portfolio of lectures and seminars which the student takes. Students wishing to continue to the PhD may seek approval to replace the essay with a research proposal for their chosen project. This essay forms 25% of the overall mark for the degree. Submission deadline 1 April 2019.
3. An MCQ paper on Research methods and statistics critical appraisal (5%). Separately arranged.
4. An oral examination, which will cover all of the submitted work above. This oral examination forms the overall mark for the degree. To be arranged for August 2019.

There is no specific assessment of the research modules, but this may form part of the oral examination in (4) above.

MPhil Project Reports

Project reports should be a maximum of 10,000 words in length, including figure legends but excluding the bibliography (and words in Tables). Your word count (excluding the bibliography) must be given on the title page.

Reports should be broken down into: Abstract, Introduction, Methods, Results, Discussion and References.

Plagiarism

At all stages of the Programme you must adhere to the University and School Guidelines for assessed work. The University's statement on plagiarism is below. More information is available here: www.admin.cam.ac.uk/univ/plagiarism/students/

Researcher Development

- Personal Skills (e.g. leadership and resilience)
- Professional Skills (e.g. presentation skills and time management)
- Career-related Skills (e.g. writing CVs and interview technique)
- Academic Skills (e.g. paper writing and teaching)
- Entrepreneurial Skills (e.g. commercial awareness and innovation)

Researcher Development (RD) encompasses all of the learning and development that you might wish to experience and acquire during your time in Cambridge. It is needed to provide you with the skills and experiences that you need both today and for the future, whatever that might be.

The structure for your RD is provided by the Cambridge Researcher Development Framework. This tells you about the competencies you need to gain to meet the goal of becoming a professional researcher

Within Cambridge there are many providers of RD activities. The central provision is provided by the Researcher Development Team (www.rdp.cam.ac.uk) and the GSLS provides you with a Core Skills Training Programme (CSTP) and other life science-specific activities (www.gradschl.lifesci.cam.ac.uk/GSLSRD). Training is also available from the University Information Services, University Library and the Careers' Service.

The CSTP is a group of activities that you are strongly recommended to complete in your first year. It has been designed to get you started in planning your RD and providing you training in the areas of personal effectiveness and communication. If you successfully complete the CSTP you will receive a certificate from the GSLS.

Departmental Training Opportunities

During the year, students will be invited to take part in training opportunities (journal clubs, *etc.*) in the Department(s) or Partner Institute(s) where they are doing their projects.

Health and Safety

Students must adhere to the specific health and safety regulations of the Department in which they are working at each stage of the Programme. Information on General Safety in Research Labs is included in Appendix 3. Students must attend the compulsory lectures in the University Safety course in October (see Appendix 1). We also encourage students to attend the optional biological safety, cryogenics, VDUs, pipettes, glass and sharps, and radiation courses. Courses can be booked online: www.safety.admin.cam.ac.uk/training/graduate-safety-course/current-timetable-venues-and-handouts

Laptops

Students will require a laptop for some of the compulsory modules included in this course. Laptops are not provided.

Lectures

Students are welcome to attend undergraduate lectures in neuroscience. Of particular interest is the NST Part1B Neurobiology course:

<https://www.biology.cam.ac.uk/undergrads/nst/courses/neuro>

Appendix 1: 2018/19 Student Timetables

Introductions, Safety, Research Methods and Statistics (COMPULSORY)

Date	Time	Activity
1 st October Mon	16:00-17:00	Welcome to the MPhil Basic and Translational Neuroscience Venue: Small Meeting Room, Physiological Laboratory - Map
2nd October Tue	08:45-13:00	The University General Safety and Chemical/Laboratory Safety Course (compulsory) Venue: Babbage Lecture Theatre - Map All students – IMPORTANT Attendance is mandatory. Please go to http://www.safety.admin.cam.ac.uk/training/graduate-safety-course/current-timetable-venues-and-handouts .
3rd October Wed	Various times (no booking required)	Optional safety sessions The University Safety Course II: Optional sessions. Venue: Mill Lane Lecture Rooms - Map For further information and timetable see www.safety.admin.cam.ac.uk/training/graduate-safety-course/current-timetable-venues-and-handouts). https://www.safety.admin.cam.ac.uk/files/day2_prog_oct18.pdf
4 th October, Thur	10:00-12:00 14:00-16:00	Matlab programming, compulsory Practical introduction to MATLAB Programming Venue: Kenneth Craik Room - Craik Marshall Building https://www.training.cam.ac.uk/jsss/venue/1897185
5 th October, Fri	10:00-12:00 15:30-17:30	Course description and prerequisites can be found: https://www.training.cam.ac.uk/jsss/event/2511964 and https://www.psychol.cam.ac.uk/grads/grads/information-for-all-graduate-students-1/pg-prog/programming#section-0
3 rd -18 th December (various times – 27 hours)		Statistical Methods for Biologists – compulsory Venue: Mill Lane Meeting rooms (check online calendar) Statistics for Biologists that focuses on practical statistics, teaching you how to perform simple analyses using the statistical package R. Exam: January 18th 10:00-13:00, Venue: Mill Lane Lecture Theatres – Room 5

Seminars on the themes of *Cambridge Neuroscience* (COMPULSORY)

Date, time, location	Lecturers	Activity
<p>Week starting 16 Oct</p> <p>Monday 8 Oct, 15:00-16:30</p> <p>Wed 10 Oct, 10:00-12:00</p> <p>Wed 17 Oct, 14:00-16:00</p> <p>Friday 19 Oct, 10:00-12:00</p> <p>Venue: Small meeting room, PDN</p>	<p>Lecturers:</p> <p>Dr Hugh Robinson</p> <p>Professor Ole Paulsen</p> <p>Professor Ole Paulsen</p> <p>Dr David Parker</p>	<p>Cellular and Molecular Neuroscience</p> <ul style="list-style-type: none"> • Action potentials and voltage-gated ion channels • Synaptic transmission and ligand-gated ion channels • Synaptic plasticity, neuro-modulation and GPCRs • Neuronal networks
<p>Week starting 29 October</p> <p>Monday 29 Oct, 14:00-16:00</p> <p>Tuesday 30 Oct, 14:00-16:00</p> <p>Venue: Small meeting room, PDN</p>	<p>Lecturers:</p> <p>Dr Matthias Landgraf</p> <p>Dr Marco Tripodi</p>	<p>Developmental Neuroscience</p>
<p>Week starting 12 November,</p> <p>Thur 15 Nov, 10:00-12:00</p> <p>Monday 19 Nov, 10:00-12:00</p> <p>Venue: Maths Lab</p>	<p>Lecturers</p> <p>Dr Stephen Eglon (DAMTP)</p> <p>Dr Raphael Romero Garcia (Psychiatry)</p>	<p>Systems and Computational Neuroscience</p>
<p>Week starting TBC</p> <p>Venue: TBC</p>	<p>Dr David Belin (Psych)</p> <p>Dr Paula Banca (Psych)</p> <p>Dr Amy Milton (Psych)</p> <p>Professor Angela Roberts (Physiology, Development and Neuroscience)</p>	<p>Cognitive and Behavioural Neuroscience</p> <ul style="list-style-type: none"> • Behavioural Control in Psychiatric Disorders • Compulsivity and Impulsivity in Addiction • Memory • Emotion
<p>Week starting TBC</p> <p>Venue: TBC</p>	<p>Professor Roger Barker</p> <p>Professor Giovanna Mallucci</p>	<p>Workshop: Medical and Veterinary Neuroscience</p>

Optional statistics seminars

Statistical Methods for Cognitive Psychologists - Optional		
4 th October, Thu	11:00-12:00	Exploratory Data Analysis
11 th October Thu	11:00-12:00	Simple and multiple linear regression
18 th October, Thu	11:00-12:00	The General Linear Model and complex designs including Analysis of Covariance
25 th October, Thu	11:00-12:00	Categorical Data Analysis
8 th November, Thu	11:00-12:00	ANOVA of balanced multi-factorial designs: between subject designs, and single subject studies
15 th November, Thu	11:00-12:00	Repeated measures and mixed model ANOVA
22 nd November, Thu	11:00-12:00	Post-hoc tests, multiple comparisons, contrasts and handling interactions
29 th November, Thu	11:00-12:00	Power analysis
6 th December, Thu	11:00-12:00	Latent variable models: factor analysis and all that
Venue: Lecture Theatre, MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 7EF map More information		

Optional neurobiology lectures

Neurobiology Lectures 2018-19

Thursday, Saturday and Tuesday, 12 noon

* Lectures will be held at 13:00, (except Saturday 24th November which is at 12:00 noon)

Venue: Anatomy Lecture Theatre

Term	Subject	Lecs	Start date	Lecturer
Mich.	Electrical Properties of Neurons	4	4 th Oct	Dr Sue Jones
	Neurotransmission and Neuromodulation	5	13 th Oct	Dr Peter Evans
	Hearing	3	25 th Oct	Dr Ian Winter
	Vision	6	1 st Nov	Dr Hugh Matthews
	Olfaction and Taste	2	15 th Nov	Dr Hugh Matthews
	Somatosensation and Pain*	4	20 th Nov	Dr Ian Winter (3) Dr Ewan St John Smith (1)
Lent	Motor System	8	15 th Jan	Dr David Parker
	Sensorimotor Integration	2	2 nd Feb	Dr Steve Edgley
	Neural Determination	4	7 th Feb	Dr Richard Adams
	Development of Neural Connections	4	16 th Feb	Dr Matthias Landgraf
	Synaptic Efficacy	4	26 th Feb	Dr. Susanna Mierau
	Motivation and Emotion	4	7 th Mar	Dr Amy Milton
Easter	Language and the Brain	2	23 rd Apr	Dr Meredith Shafto
	Learning and Memory	4	27 th Apr	
	Higher Functions of the Nervous System	3	7 th May	Dr Hannah Clarke

Appendix 4: Research Methods and Statistics

Practical introduction to MATLAB Programming (8 hours) Compulsory

[Dénes Szűcs](#) will run an 8-hour intensive course entitled 'Practical introduction to MATLAB Programming'. The course focuses on practical hands-on variable handling and programming implementation rather than on theory. This course is intended for those who have never programmed before including those who only call/run Matlab scripts but are not familiar with how code works and how matrices are handled in Matlab. (Note that calling a couple of scripts is not 'real' programming.) It is essential that you bring your own laptop with the latest version of Matlab (see www.mathworks.com) pre-installed. Cambridge students can download and install Matlab from mathworks.com for free with their CRSid. Select and install all packages available to you. We will immediately write programme code so the best way to learn is to use Matlab during the class for taking notes and running the code. It is advisable that you skim through the excellent free resource [Getting Started and Language Fundamentals](#)

Thursday 4 October 2018 - 10.00-12.00 and 14:00-16:00

Friday 5 October 2018 - 10.00-12.00 and 15.30-17.30

All sessions will take place in the [Kenneth Craik Seminar Room](#).

You must attend all sessions.

Statistical Methods for Biologists (27 hours) Compulsory

Dr Matt Castle will run this course.

The course is 10 sessions of 2.5-3 hours each. It is essential that you bring your own laptop. The first 1 hour is an interactive lecture and the remainder is essentially a practical session.

Statistics for Biologists that focuses on practical statistics, teaching you how to perform simple analyses using the statistical package R. This course will take place from 3rd -13th December.

December 3rd, 4th 6th 7th 10th 11th (14:00-17:00 on each day); 13th December (10:00-13:00 and 14:00-17:00). All classes will take place in '17 Mill Lane – Meeting Room B' except December 6th (17 Mill Lane – Meeting Room E). This course will be followed by an assessment (5% of final mark) on Friday January 18th 2019, 10:00-13:00 (Mill Lane Lecture Theatres – Room 5).

You must attend all sessions.

Statistical Methods for Cognitive Psychologists (9 hours) Optional

<http://www.mrc-cbu.cam.ac.uk/seminar-information/statistics-seminars/>

This is a course planned with the needs in mind of a graduate student starting their studies. The presentation will be as fairly formal lectures, each aiming to:

- outline a particular class of methods
- give examples of it being applied to realistic situations
- indicate how to implement it using software available at CBU.

All talks will be given by Peter Watson of the MRC Cognition and Brain Sciences Unit.

Talks will take place on Thursday mornings from 11:00-12:00 in Michaelmas term from October 4th-December 6th 2018, in the Lecture Theatre at the MRC Cognition and Brain Sciences Unit (MRC CBSU), 15 Chaucer Road, Cambridge CB2 7EF.

Appendix 5: Research Training Modules (provisional list)

Research Module 1: Computational Neuroscience (16 hours)

Dr Stephen Eglen, Department of Applied Maths and Theoretical Physics (February 2019)

This 16-hour course will introduce key techniques in computational neuroscience. The starting point is the classical model of action potential generation and propagation by Hodgkin and Huxley. After this is introduced, we will examine simplifications for computational convenience. Moving from the single cell to networks of neurons allows us to study short- and long-term memory formation. We then explore how large-scale human brain networks are generated and analysed. In the final part of the course we will examine network plasticity and development.

Research Module 2: Quantitative Analysis of Neuroimaging Studies

Dr Jon Simons and Dr Jane Garrison, Department of Psychology (December 2018)

Meta-analysis is an increasingly popular and useful method for integrating research findings across numerous functional neuroimaging studies. Quantitative meta-analyses can be used to localise brain regions most consistently associated with a particular type of behaviour despite variation in participants, tasks and scanning procedures. Students will learn how to extract coordinates of brain activation patterns from neuroimaging papers and use software to conduct a meta-analysis of human brain function.

Research Module 3: Neural markers and mechanisms of impulsivity and compulsivity

Professor Jeff Dalley and Dr Bianca Jupp, Department of Psychology (February 2019)

Impulsive and compulsive symptoms are present in many neuropsychiatric and neurological disorders (e.g. ADHD, OCD, addiction, PD). Clues to the aetiology of impulsive/compulsive disorders have been significantly informed by translational research in clinical populations, healthy human volunteers, and experimental animals, to the point where novel therapies are now becoming a realistic prospect. Students will join the Dalley laboratory to work on the molecular and behavioural mechanisms of impulsivity/compulsivity in rats, and will acquire transferrable skills in at least two of following experimental techniques: (i) the objective measurement of behaviour in experimental animals; (ii), local gene expression in the brain; (iii) analysis of sub pico-molar quantities of neurotransmitters in brain samples; (iv) interventional approaches to target defined neural circuits in the brain; (v) analysis pipelines for high-field magnetic resonance imaging (rs fMRI, voxel-based morphometry, spectroscopy, diffusion tensor imaging).

Research Module 4: Loose Patch Clamp Recording (20 hours)

Dr Hugh Matthews & Professor Chris Huang, Department of Physiology, Development & Neuroscience (November 2018)

In this intensive hands-on practical methods course you will investigate the voltage and time dependent sodium and potassium conductances of mouse gastrocnemius muscle. You will record the ionic currents flowing across the muscle membrane under voltage clamp using the loose patch clamp technique. From these records you will be able to study the voltage-dependent gating of the sodium and potassium conductances underlying the action potential. You will also use a computer model incorporating the Hodgkin-Huxley equations to simulate

some of the experiments which you will carry out, in order to improve your understanding of the way in which these conductances depend on membrane potential.

Research Module 5: Cognitive Electrophysiology (20 hours)

Dr Denes Szucs, Department of Psychology (Dates TBC)

In about two hours duration students will attend hands-on practical sessions, learn about human non-invasive electrophysiological data acquisition and set up a dummy measurement session. During the rest of the project students will have a chance to work with already acquired high temporal and spatial resolution (129 electrode channels) electrophysiological data to gain some data analysis experience. The acquired data will have been collected in a numerical cognition experimental paradigm in adult humans and offers insights into how numerical representations are organized. This module is particularly suited to students with strong programming, analytical and Matlab experience because it required advanced modelling of the data. This project can be developed further into a full blown research project."

Research Module 6: Invertebrate models for studying neuro-developmental disorders (6-8 hours)

Dr Jimena Berni and Dr Matthias Landgraf, Department of Zoology (January 2019)

This research module is a hands-on introduction to the power of invertebrate model systems for studying neurodevelopmental conditions. You will be working with a *Drosophila* (fruitfly) model for studying mechanisms underlying network tuning during critical periods and seizures, which result when tuning is disturbed, leading to sub-optimally adjusted, unstable networks. Within a few hours we will explore for the first time the role of novel plasticity pathways in network tuning and seizure susceptibility; using genetic manipulations we will ask whether seizure susceptibility is compartmentalised to specific regions or neuronal subsets. You will work with larval and adult stages, observe and quantify ranges of animal behaviour and carry out different seizure induction assays. Overall, this research module will illustrate the advantages of using invertebrate model systems for fundamental research that is clinically relevant and offers opportunities for translation.

Skills-oriented training opportunities at the MRC CBSU (Research modules 7-9)

<http://imaging.mrc-cbu.cam.ac.uk/methods/education>

Details will be announced before individual events via MRC CBSU "skills training" mailing list, instructions can be found here: <http://imaging.mrc-cbu.cam.ac.uk/methods/education>. (Non MRC CBSU people can subscribe by sending an e-mail to skillstraining-subscribe@mrc-cbu.cam.ac.uk.)

Research Module 7: Introduction to Scientific Computing and Matlab (16 hours)

Dr Olaf Hauk, MRC Cognition and Brain Sciences Unit (October 2018)

More information: <http://imaging.mrc-cbu.cam.ac.uk/methods/MatlabLecturesSchedule>

Matlab is the Swiss Army Knife of data analysis: no matter whether you are analysing neuroimaging data, behavioural data or your latest bank statements, Matlab can make you do things you thought were never possible. These Matlab workshops also serve as an introduction

to scientific computing, which will be useful even if you are more likely to use R, Python etc. in your work. These workshops are aimed at researchers with no or little prior experience to programming (in Matlab or otherwise). It is not intended to provide a full Matlab or Linux course, but rather significantly facilitate the first few steps. This course will take place in the week commencing October 22nd 2018 (22nd, 23rd, 24th, 26th). Sessions will take place in the West Wing Seminar Room and will take approximately 2 hours, with an opportunity to practice and ask questions afterwards.

Research Module 8: Introduction to Signal Analysis in Matlab (14 hours)

Dr Olaf Hauk, MRC Cognition and Brain Sciences Unit (November 2018)

More information: <http://imaging.mrc-cbu.cam.ac.uk/methods/SignalAnalysisMatlabSchedule>

These workshops are aimed at beginners, but some basic knowledge of Matlab is required, e.g. at the level of our previous "[Introduction to Matlab and Scientific Computing](#)" workshops (Research Module 7). It is not intended to provide a full Matlab or signal processing course, but rather significantly facilitate the first few steps. These workshops provide a basis for the following workshop series "[Introduction to Neuroimaging Methods](#)" (Research Module 9). This course will take place in the week commencing November 12th 2018 (12th, 13th, 14th, 16th). Sessions will take place in the West Wing Seminar Room and will take approximately 2 hours.

Research Module 9: Introduction to Neuroimaging Methods (~40 hours)

Dr Olaf Hauk, MRC Cognition and Brain Sciences Unit (January 2019-February 2019)

More information: [http://imaging.mrc-](http://imaging.mrc-cbu.cam.ac.uk/methods/IntroductionNeuroimagingLectures)

[cbu.cam.ac.uk/methods/IntroductionNeuroimagingLectures](http://imaging.mrc-cbu.cam.ac.uk/methods/IntroductionNeuroimagingLectures)

Lectures and workshops will take place in January and February 2019 in the West Wing Seminar Room (unless stated otherwise, please check link). They are structured in three blocks: MRI (Jan 15-17), fMRI and Connectivity (Feb 13-15), as well as EEG/MEG and Multimodal Imaging (Feb 19-23). Workshops usually take about 2 hours, lectures may be shorter.

Attendees of the neuroimaging workshops are expected to have basic knowledge of scientific programming (e.g. Matlab, R, Python). They don't necessarily have to attend the MRC CBSU workshops on Matlab (Research Modules 6 and 7), but they should have equivalent skills. If they don't have this, they may have to team up with other members of the course in order to do the hands-on work. Laptops will be provided for the workshops.

Appendix 6: Interdepartmental Seminars, talks and lectures

The *Cambridge Neuroscience* community collectively hosts ~350 talks and seminars per annum. To sign up to receive email alerts about neuroscience seminars, please visit <http://www.talks.cam.ac.uk/>. A selection of is shown below. See complete list <https://www.neuroscience.cam.ac.uk/talks/>

Seminar series	Adrian Seminars in Neuroscience
When	Mondays at 16:30-18:00
Where	Hodgkin Huxley Seminar Room, Physiology Building, Downing Site.

Seminar series	Behavioural and Clinical Neuroscience Seminars
When	Days vary, 13:00-14:00
Where	Kenneth Craik Room, Craik Marshall Building, Downing Site, Cambridge.

Seminar series	Foster Talks
When	Thursday 16:00-17:00
Where	Hodgkin Huxley Seminar Room, Physiology Building, Downing Site.

Seminar series	Zangwill Club
When	Friday, 16:30-17:30
Where	Ground Floor Lecture Theatre, Department of Psychology.

Seminar series	Department of Psychiatry & CPFT Thursday Lunchtime Seminar Series
When	Thursday, 12:30-13:30
Where	Seminar Room, Herchel Smith Building, Forvie Site..

Seminar series	Computational Neuroscience
When	Check link for upcoming talks
Where	Computational and Biological Learning Lab (http://learning.eng.cam.ac.uk/), Department of Engineering (for directions see http://learning.eng.cam.ac.uk/Public/Directions)

Seminar series	Chaucer Club
When	Thursday 15:30-17:00
Where	MRC Cognition and Brain Sciences Unit

Seminar series	Clinical Neurosciences Seminar Series
When	Usually Thursday 12:00-13:00
Where	James Fawcett Seminar Room, van Geest Building

Seminar series	Mental Health Life Course Lecture Series
When	Lectures will take place once a term, check link for details
Where	Cambridge Institute of Public Health Large Seminar Room (first floor)

Seminar series	Wednesday Lunch Time Seminar Series (MRC CBSU)
When	Wednesday 12:30-13:30
Where	MRC Cognition and Brain Sciences Unit
