Fact File

MODE OF STUDY
Full-time: one year – two days per week
Part-time: two years – one day per week plus dissertation
Associate students may take one or two modules

ENTRY REQUIREMENTS
A relevant first degree. Professional clinical experience in rehabilitation is desirable.

ENQUIRIES
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This is an advanced academic course designed for professional practitioners (e.g., occupational therapist, physiotherapist and speech & language therapist) and for others with a special interest in neurorehabilitation. The course offers you the opportunity to acquire advanced theoretical knowledge, a deeper understanding of research and the ability to critically appraise scientific literature. The course encourages you to critically evaluate how theoretical knowledge informs professional practice in neurorehabilitation and to integrate knowledge with your clinical experience and skills.

The School of Health Sciences and Social Care is one of the largest schools in the University, and attracts funding from a range of national and international sources.

The School’s postgraduate courses emphasise the importance of interdisciplinary and integrated education for professionals.
MSc in Neurorehabilitation

Course details

The course explores the neurosciences in health and disease, and takes a research-based approach to encourage critical and analytical thinking about current theory and practice in neurorehabilitation. The course does not further clinical skills, nor leads to registration from the UK professional governing bodies, but rather focuses on developing the practitioner's ability to conduct and evaluate neurorehabilitation research. Following the successful completion of the taught modules of the programme, students are expected to undertake a research project for the dissertation relevant to their specialist areas within neurorehabilitation.

The course consists of seven taught modules plus the dissertation. It is CATS rated at M level. The taught modules are 15 and 30 credits and the dissertation is 60 credits. The taught modules are delivered over the two, 12 week teaching terms on Tuesdays and Wednesdays.

The course can be completed in either Full time (2 days/week) over one full academic year, or Part time (1 day/week) over the two years. The dissertation for Part time students is normally submitted within one year following completion of all the taught modules.

Modules

The seven taught modules aim to develop your understanding and critical thinking of the clinical neurosciences underpinning neurorehabilitation, as well as develop your ability to conduct and evaluate research by exploring the methods and principles of design and evidence based practice. The six modules are:

Neurophysiological Basis for Rehabilitation of Movement (15 credits)

The module examines clinical neurophysiology of movement control in health and disease as well as current research in rehabilitation of movement. The key aspects of the study of movement include: neuromuscular control, reflexes, posture and balance, as well as sensorimotor systems, motor control, the impact of aging, and neuroplasticity in recovery of function. Students will undertake several neurophysiological laboratory practicals relevant to the topics of the module.

Functional Neuroscience for Rehabilitation (15 credits)

The module examines functional neuroscience relevant to the field of rehabilitation. This includes detailed examination of synaptic physiology and plasticity, functional organisation of brain areas, new treatments in recovery of neural function, physiological basis of behaviour, development and aging, sensation and perception (e.g., vision and hearing) and cognitive brain function in health and disease. Particular emphasis is on current research and the use of modern techniques in the study of neurological conditions and diseases.

Research Methods (15 credits)

This module explores a wide range of research methods and deepens your understanding of the philosophy of science and the scientific method. Students are introduced to a number of quantitative and qualitative research methodologies applied in research.
Principles and Practice in Evidence-Based Healthcare (15 credits)
The module offers students the opportunity to examine recent literature and to consider its contribution to evidence-based practice. Students will explore the types of information that are collected about health and clinical practice and will critically evaluate research material from a range of study designs.

Clinical Applications in Neurorehabilitation (30 credits)
Through exploring links between theory and practice, this module aims to enhance the health care professional’s ability to reflect upon day-to-day practice as a rehabilitation specialist and critically evaluate interventions for the treatment and management of neurological conditions.

Cognitive and Behavioural Issues in Neurorehabilitation (15 credits)
This module explores psychological processes underpinning perception, attention, memory, and motor planning. The module also investigates how these processes may be disrupted by a variety of neurological conditions. Subjective and behavioural aspects of neurological dysfunction are discussed in the context of rehabilitation.

Research Design (15 credits)
The module aims to develop the student’s critical understanding of the research process including the effective use of the literature review and selection of an appropriate research design relevant to the research question. In this module, students will begin integrating conceptual and theoretical issues within a selected field of enquiry, in order to produce a research proposal for the dissertation.

Dissertation (60 credits)
The dissertation is the major element of a Master’s Degree. It provides you with the opportunity to integrate and apply the concepts and principles developed throughout the course within your own particular area of work. It encourages exploration and investigation of your own particular area of interest and expertise, and it is intended that the topics selected will reflect the negotiated needs for development in your own clinical area. The time allocated will consist of library-based, tutorial and practical work, and you are expected to work towards completing the requirements of the dissertation in your own time. Full time students shall normally submit the dissertation by the end of the academic year following completion of the taught modules; for part time students this would normally be at one academic year of completion of taught modules.

Recent examples of dissertations by students taking this course include:
- The six month post discharge stroke review: stroke survivor’s views of their unmet needs and issues arising in the community.
- How can the needs of people with Multiple Sclerosis be met in the community? The perspective of community rehabilitation professionals.
- Effect of a new physiotherapy concept on bone mineral density, muscle force and gross motor function in children with bilateral spastic cerebral palsy.
- The validity and reliability of the impact of participation and autonomy (IPA) questionnaire for adults with cerebral palsy.
- Motor cortical excitability associated with interaction of anodal transcranial Direct Current stimulation, graded functional electrical stimulation and voluntary motor control in wrist extensors of healthy adults.
How to find us...

For Further Information About This Postgraduate Degree:

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To Apply:
Please submit your application via our website at
www.brunel.ac.uk/courses/postgraduate/B900PNEUR
and choose ‘Apply’ from the right hand sidebar. You will need to create a login and password.

Home/EU Applicants
Please forward copies of any additional documents to the Admissions Office below quoting your application reference number.
Admissions, Brunel University, Uxbridge, UB8 3PH
Telephone: +44 (0)1895 265265
E-mail: admissions@brunel.ac.uk

International Applicants
Please forward copies of any additional documents to the Admissions Office below quoting your application reference number.
Brunel International (Admissions), Brunel University, Uxbridge, UB8 3PH
Telephone: +44 (0)1895 265519
Email: brunel-international@brunel.ac.uk

To receive a copy of Brunel’s postgraduate prospectus:

Course Enquiries,
Brunel University, Uxbridge, UB8 3PH
Telephone: +44 (0) 1895 265599
Email: marketing@brunel.ac.uk

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...for a practical, imaginative approach...
Brunel University is named after the celebrated nineteenth century engineering genius, Isambard Kingdom Brunel, famous for a range of ambitious and highly innovative projects. The ethos of our world-renowned namesake is reflected in the design of our degree courses which combine academic rigour with a practical, entrepreneurial and imaginative approach. And all our courses are underpinned by our research.

...a modern, self-contained campus within a 45-minute tube journey of London...
All our up to the minute facilities are located on a single campus which means that everything is close at hand; as are Central London and Heathrow Airport.

...and for excellent student support.
Brunel Graduate School organises a range of activities and generic training sessions specifically for postgraduate students.
Students with disabilities are also well looked after at Brunel, for further details, visit www.brunel.ac.uk/life/welfare.