

Neurosurgery

Postgraduate Diploma and MSc Courses



THE UNIVERSITY OF
BUCKINGHAM



Postgraduate Diploma

Delivered over 1 year, the online, part-time, Postgraduate Diploma course is specially developed for busy health professionals. Formatted in 6 modules, each 6 weeks in duration; the course is designed to be practical and clinically focused.

MSc

The MSc runs over 2 calendar years, with the first year comprising of the Postgraduate Diploma. The second year begins with an 8-week focus on research methods, covering research techniques, evidence-based practice, and health evaluations. Students then develop a Professional Project (dissertation), considering the necessary ethical issues required by the University.

Why study Neurosurgery with us?

Taught completely online, our Postgraduate Diploma and MSc in Neurosurgery has been designed for healthcare professionals in the UK and overseas who want to specialise in Neurosurgery and develop both theoretical knowledge and research skills.

This unique online Neurosurgery course is specially developed for busy health professionals and is practical and clinically focused. It will give you a better understanding of the role of neurosurgery within healthcare settings, allowing you to apply your knowledge to your clinical practice.

“

Our courses in Neurosurgery equips healthcare professionals with advanced skills to excel in rapidly evolving medical scenarios. This programme is ideal for those seeking to enhance their expertise in a geriatric care setting.

Miss Caroline Hayhurst, Learna | Diploma MSc Programme Leader

”

Neurosurgery Postgraduate Diploma

Course Modules

Our online Neurosurgery Postgraduate Diploma allows you to study for just one calendar year and is a part-time, online course. The course is worth 120 credits and comprises six modules of 20 credits, each running over a period of six weeks.

Module 1 - Assessment and management of brain and spine trauma

Aim of the module:

The module aims to address the investigation, diagnosis and management of brain and spine trauma, including critical appraisal of the evidence-base and neurosurgical approaches appropriate for CNS trauma.

Synopsis of module content:

- Assessment of head injury
- Primary and secondary brain injury
- Management of intracranial pressure
- Natural history of severe head injury
- Principles of spinal injury
- Principles of neurorehabilitation

On completion of this module, students will be able to:

1. Demonstrate an in-depth knowledge of the assessment and investigation of patients with head and spine trauma.
2. Critically interpret the evidence base to demonstrate application of knowledge to the management of traumatic brain and spine injury.
3. Exercise initiative, personal responsibility and ethical decision-making in brain and spine trauma.

Module 2 - Neuro-oncology

Aim of the module:

To provide healthcare professionals with the skills and knowledge to assess and manage patients with suspected brain and spine tumours.

Synopsis of module content:

- Basics and investigations
- Tumour presentations
- High grade glioma
- Low grade glioma
- Extrinsic lesions
- Pituitary tumours

On completion of this module, students will be able to:

1. Critically apply combined professional knowledge of neuro-oncology to improve delivery in complex situations.
2. Demonstrate an in-depth understanding of the evidence relating to the diagnosis, investigation, and management of patients presenting with neuro-oncological disorders.
3. Demonstrate leadership skills in coordinating academic activities, engaging and responding to colleagues' academic interrogation.

Module 3 - Cerebrospinal fluid disorders and paediatrics

Aim of the module:

To provide students with the skills and knowledge to assess and manage patients presenting with cerebrospinal fluid (CSF) disorders and paediatric patients.

Synopsis of module content:

- CSF physiology and raised intracranial pressure
- Adult hydrocephalus
- CNS embryology and developmental disorders
- Paediatric tumours of CNS
- CNS infection
- Assessment and considerations of the paediatric surgical patient

On completion of this module, students will be able to:

1. Critically interpret and apply the evidence base in the assessment and management of cerebrospinal fluid (CSF) disorders in children.
2. Demonstrate skills to appraise, reflect upon, and adapt treatments to a range of cerebrospinal fluid disorders in children and adults.
3. Critically apply combined professional knowledge of cerebrospinal fluid disorders and paediatrics to improve delivery in complex situations.

Module 4 - Neuro-vascular disorders

Aim of the module:

To provide healthcare professionals with the skills and knowledge to assess and manage patients with vascular disorders of the central nervous system.

Synopsis of module content:

- Neurosurgical vascular anatomy, imaging and clinical correlation
- Cerebral blood flow and subarachnoid haemorrhage
- Cerebral aneurysms
- Vascular anomalies
- Assessment and management of spontaneous ICH
- Assessment and neurosurgical management of cerebral ischaemia

On completion of this module, students will be able to:

1. Critically interpret and apply the evidence base in the assessment and management of vascular disorders of the central nervous system.
2. Critically appraise, reflect upon, and adapt treatment depending on the evidence-base for vascular pathology of the central nervous system.
3. Critically apply combined professional knowledge of neuro-vascular disorders to improve delivery in complex situations.



Doing a course, all online is a lot more convenient for me around my clinical role so that's why I chose to study with Learna... I really like how flexible the course was, I liked the freedom I got with the professional project and I was well supported throughout the whole 2 years!

- Lisa Jayne Edwards, Medical Education MSc graduate

Module 5 - The spine and spinal cord

Aim of the module:

To provide students with the skills and knowledge to assess and manage patients with conditions affecting the spine.

Synopsis of module content:

- Spinal anatomy and imaging
- Spinal trauma and instability
- Spinal tumours
- Degenerative lumbar spine
- Degenerative spine – cervical and thoracic
- Spinal infection and vascular abnormalities

On completion of this module, students will be able to:

1. Critically analyse the evidence base and available treatments to plan and manage common spinal conditions.
2. Critically appraise common spinal conditions including appropriate examination, assessment and management.
3. Evaluate and apply evidence based practice to the delivery of spinal services and outcome assessment.

Module 6 - Assessment and management of complications in neurosurgery

Aim of the module:

To provide students with the skills and knowledge to assess and manage the acutely unwell neurosurgical inpatient.

Synopsis of module content:

- Assessment of postoperative deterioration
- Seizures and epilepsy
- Electrolyte disorders
- Endocrine emergencies
- Post-operative CNS infection
- Systemic post-operative complications

On completion of this module, students will be able to:

1. Critically interpret and apply the evidence base in acute medical neurosurgical emergencies.
2. Demonstrate an advanced knowledge of safe intervention and care in an acute neurosurgical setting.
3. Reflect on learning from prior experience and challenge preconceptions in order to holistically integrate new knowledge in neurosurgical complications.



"When I enrolled into the course I had no idea about the opportunities it would provide me with. Having my first paper published through this course helped me overcome my apprehensions of academic writing and made me more confident to pursue it further. "

Rutu Dave

Module 7: Professional Project

Aim of the module:

The Research Methodologies and Critical Appraisal element of the module will help students recognise, understand, interpret and apply methods used in healthcare research and critically appraise the various methodologies related to the specialty.

The Professional Project Proposal and Professional Project elements will develop students' ability to critically appraise specific areas of clinical, research and/or organisational practice and develop skills in independent research, study and writing for publication.

Synopsis of module content:

Research Methodologies and Critical Appraisal:

- Key epidemiological terms: prevalence, incidence, sensitivity, specificity, false positives/negatives.
- Interpretation of data visuals: Kaplan-Meier curves, forest plots, meta-analyses.
- Research calculations: relative/absolute risk, number needed to treat.
- Statistical tests: t-tests, ANOVA, chi-square.
- Qualitative research methods.
- Basics of evidence-based practice in clinical settings.
- Health economics, audit, and quality improvement principles.
- Importance of patient and disease-specific registers.
- Research on educational methods for healthcare providers and patients.

Professional Project: Students will complete a subject-related project relevant to their practice, which may include:

- Literature review and evidence appraisal.
- Practice audit (clinical or organisational).
- Review and application of evidence-based practice.
- Qualitative or quantitative research.
- Case-based and quality of service review with critical appraisal.
- Case report, literature review, or organisational assessment.

On completion of this module, students will be able to:

1. Select and apply different methodological perspectives and tools to answer research questions in the field.
2. Critically analyse and interpret research in the subject area.
3. Critically evaluate practice and suggest improvements or change.
4. Incorporate knowledge of the research process in developing services appropriately.
5. Critically analyse and interpret research to assess its application to delivery/service development.
6. Evaluate ethical considerations in research and the process of engagement with ethical committees.
7. Design and undertake a professional project related to the field of practice in order to produce an extensive piece of literature which may be suitable for peer-reviewed publication.
8. Create evidence-based recommendations to add to the knowledge base of the subject area.
9. Demonstrate critical evaluation skills enabling an in-depth critique of the academic literature.



Teaching Methods

Our courses are conducted entirely online through our online learning platform. However, you will receive guidance throughout with tutor-stimulated academic discussions, which are based on clinically-rich case scenarios. These usually occur within groups of 10-15 students, allowing you to clearly communicate with both your tutor and fellow students.

You will participate in a combination of group and individual activities, which are recorded in a reflective journal. This innovative teaching method enables you to envisage the translation of your studies into your every day work and practice.

Our dedicated Student Support Team are also available to help with any problems you may face. From navigating our online platform to advising you on deadlines, our team can assist with any questions or challenges you may have along the way.

Study skills week

Once you have secured your place on the course, you will be required to attend our Study Skills week. This will give you the opportunity to participate in workshops on Harvard referencing, scientific and reflective writings, and levels of evidence in preparation for your studies. It is compulsory for you to attend this induction, as it'll provide you with a sturdy introduction to the course.

Neurosurgery: Postgraduate Diploma and MSc Courses

Entry Requirements

English Requirements

- IELTS with an overall score of 6.5 or above.
- GMC / NMC (Nursing Midwifery Council) / GPhC / HCPC registered – with a licence to practise.
- Proof of study at a UK, USA, Australian, New Zealand or Canadian University or membership to a medical body from one of these countries.

Educational Requirements

- Possess an undergraduate degree in a relevant subject awarded by a UK university or overseas equivalent.
- Provide evidence in the personal statement as to how they can apply learning to a practical setting and reflect on practice.
- Basic IT skills (e.g. word processing, email and internet).
- If English is not the student's first language they must hold an English language qualification.

Health professionals working within a clinical setting, both UK and overseas, with a related Healthcare Science degree (including international qualifications) are eligible to apply for the Neurosurgery courses.

Applicants without the above academic criteria but relevant/ suitable experience can apply. Applications will be judged on the individual specifics of background and qualifications including ability to work at Postgraduate level (applicants may be asked to submit a piece of work for assessment to confirm that they are able to work comfortably at postgraduate level and demonstrate requisite clinical/professional knowledge).





What do our students think?

Since 2010, over 8000 students have progressed their medical career by enrolling in one of our qualifications. We ourselves have learned a lot during this time and continually seek to improve the student learning experience. Here is what some of our previous students have said:

"I found the online learning very interesting. It enabled me to save money and time."

Dr Imad Eddin Rahamtalla, Doctor

"I strongly recommend Diploma MSc to all those busy physicians who are working in remote areas and wish to upgrade their knowledge."

Dr Junaid Zaffar, Diabetologist

"The learning was fun and enjoyable. The course was awesome and it increased my confidence."

Dr Sankar Nath Jha, Assistant Professor

"I found learning with Diploma MSc interesting, it helped to update my academic knowledge."

Dr Prasanth Kinattapurayil, Doctor

"I love that it was flexible and that I could log in at my convenience. I found this course to be very in-depth, informative, challenging and stimulating."

Kerri-Ann Best PGDip, RD



-  <https://www.facebook.com/DiplomaMSc>
-  <https://www.linkedin.com/company/diploma-msc>
-  <https://www.instagram.com/diplomamsc>
-  <https://twitter.com/DiplomaMSc>

To apply now visit: www.diploma-msc.com/c

For more information on applications email
admissions@learna.ac.uk
or call +44 (0) 29 2192 1312