

The Chinese University of Hong Kong
Master of Science Programme in Stroke and Clinical Neurosciences

Course List and Description 2024-2026
For 2024 Intake

Term	Course	Unit
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Courses offered in 2024-2025

1	MCNS5301 Basic Anatomy and Clinical Approach in Neurology	2.0
	MCNS5101 Imaging and Clinical Electrophysiological Techniques	1.5
2	MCNS5302 Cerebrovascular Diseases	1.5
	MCNS5303 Neurological Diseases	2.5
	MCNS5401 Health Services Management (<i>Elective</i>)	1.0
Summer Session (SS)	MCNS5103 Interactive Workshops – Practical Management of Common Neurological Diseases	1.5
	MCNS5201 Neurosurgery	1.0
Sub-total (including MCNS5401)		11

Courses offered in 2025-2026

1	MCNS6305 Epidemiology, Biostatistics and Research Methodology	1.0
	MCNS6306 Practical Statistical Procedures and Scientific Report Writing	1.0
	MCNS5205 Rehabilitation Sciences	1.5
2	MCNS5304 Neuro-Rehabilitation	1.0
SS	MCNS5206 Comprehensive Dementia Care	1.0
	MCNS5104 Caregiving skills and Stress Management	1.0
1,2,SS	MCNS6361 Practicum	0.5
	MCNS6381 Project	7.0
Sub-total		14

Total (including MCNS5401)

25

The above course list is subject to change. Students will be informed of any changes in due course.

Course Description (2024-2026)

MCNS5101 Imaging and Clinical Electrophysiological Techniques

This course is designed to facilitate students to understand the principles and application of the common electrophysiological investigations in hospital. These include electroencephalography, evoked potentials, electromyography, nerve conduction study, transcranial Doppler ultrasound, carotid duplex ultrasound, structural brain imaging (CT and MRI), and functional imaging (PET). Furthermore, indications and techniques for special diagnostic procedures, namely lumbar puncture, muscle and nerve biopsy will be taught.

MCNS5103 Interactive Workshops-Practical Management of Common Neurological Diseases

This course adopts a “case-study” format to analyze the clinical decision in stroke, epilepsy, dementia and neuromuscular diseases; from diagnosis to management, key investigations and differential diagnosis, grading of disability, skills in patient screening and assessment will be covered. This course will equip students the practical knowledge and approach in the evaluation and management of common neurological diseases.

MCNS5104 Caregiving Skills and Stress Management

This course aims to equip students with the relevant knowledge and practical psychological and behavioural-based skills for enhancing psychological and physical well-being of informal caregivers of dementia. It also aims to facilitate a holistic case management for community dementia services by teaching the concept and assessment of caregiving stress, psychological intervention for caregiving stress and medico-legal issues.

MCNS5201 Neurosurgery

This course aims to teach students the neurosurgical management of head injury, trauma to the spinal cord, coma states, brainstem damage, neurovascular disease, functional neurosurgery, and stereotactic radiosurgery.

MCNS5205 Rehabilitation Sciences

This course will help students to acquire a basic and updated knowledge of different aspects of neurorehabilitation: neuroplasticity, functional concepts in rehabilitation, management of spasticity and other complications from neurological impairment, rehabilitation after traumatic brain and spinal cord injury, theory and practice of cognitive rehabilitation, sexual rehabilitation, pain management, as well as rehabilitation and palliative care.

MCNS5206 Comprehensive Dementia Care

This course provides healthcare workers a broad perspective for dementia care, covering topics in prevention, pharmacological and non pharmacological treatment, as well as medical legal issues ; the respective lectures will be covered by different healthcare disciplines, including neurologist, psychiatrist, nurse, occupational therapist, physiotherapist and dietitian.

MCNS5301 Basic Anatomy and Clinical Approach in Neurology

This course aims to teach students the basic anatomy of the brain (including the brain stem and cerebellum), spinal cord and important nerves. The anatomy will be explained in light of its functions. Relationship between brain regions and behaviors will be discussed. Basic pathological classifications and the fundamentals of clinical approach for neurological diseases will be explained. Principles in history taking, methods of neurological examination (cranial nerves and limbs examination) and an overview of neurological investigations will be discussed.

MCNS5302 Cerebrovascular Diseases

This course will particularly focus in cerebrovascular disease and stroke. It will provide basic and most updated knowledge in the following areas: vascular physiology, epidemiology of stroke, the pathogenesis, mechanisms, clinical features, treatment and prevention of stroke. Subarachnoid hemorrhage and its surgical interventions will also be covered.

MCNS5303 Neurological Diseases

This course aims to teach students the clinical features, diagnosis, pathophysiology, investigations, and management of the following neurological diseases: epilepsy in adult and pediatrics, Parkinson's disease and other movement disorders, demyelinating diseases, autoimmune neurological diseases, genetics of neurological diseases, heredity neurological disorders and brain tumor, infections of the central nervous system, headache and migraine, Alzheimer's disease and other dementia disorders, various neuromuscular diseases, and developmental disorders.

MCNS5304 Neuro-Rehabilitation

This course will teach the principles and applications of neuro-rehabilitation. This includes physiotherapy, occupational therapy, speech therapy, clinical neuro-psychology, social work and dietetics in neuro-rehabilitation. Furthermore, poststroke psychiatric comorbidity including depression, cognitive impairment, and emotional disturbance, and its management will also be taught.

MCNS5401 Health Services Management (Elective)

This course will help students to acquire updated knowledge of different aspects of health services management, including leadership, strategy and planning, risk and quality management, as well as medicine and law.

MCNS6305 Epidemiology, Biostatistics and Research Methodology

This course will introduce the basic concept of epidemiology, research methodology and the importance of experimental design and planning in the execution of a research project. This course will equip students the fundamentals in these few areas.

MCNS6306 Practical Statistical Procedures and Scientific Report Writing

This course aims to equip students with practical skills needed in performing statistical analysis using SPSS for research purposes and in preparation of research manuscripts in medicine, stroke, and clinical neurosciences.

MCNS6361 Practicum

Students will be assigned to have practicum sessions in different areas, such as cognitive and behavioral assessment in neurological setting, electroencephalogram, imaging, nerve conduction study and Transcranial Doppler. The practicum will provide students with clinical exposure to the different areas that have been covered in lectures of other courses. This will enhance and consolidate students' knowledge on these areas.

MCNS6381 Project

Students have to write an individual report on topics relevant to stroke and clinical neurosciences. This course aims to deepen students' knowledge in a particular neurological area that is of interest to him/her and is relevant to his/her work. This course will also develop students' skills in creative and analytical thinking, research methods, and research writing.