



## CERT NEUROPSYCHIATRY(SA) BLUEPRINTS

Number of years of study: 2 (up to 50% accepted in part-time equivalent). Part time: 50% weekly effort up to a maximum of 4 years

**PART A:** Curriculum Content Blueprint

**PART B:** Competencies

**PART C:** Formative and Summative Assessment details (includes nature and weighting of final examination components)

### PART A: Curriculum Content Blueprint

<b>PAPER 1</b>		
<b>Module/Section</b>	<b>Components / sub-sections</b>	<b>Weighting (%)</b>
Basic Neurosciences including neuroanatomy, neurophysiology, neurochemistry	<ul style="list-style-type: none"> <li>• Brain structure at the macroscopic and microscopic levels, in particular the knowledge of relation of networks, systems and substrates as they pertain to neuropsychiatric disorders.</li> <li>• CNS structure-function correlations, for example, functional anatomy of the central nervous system.</li> <li>• Neurochemistry, including neuromodulation, neurotransmission, neurotransmitter and receptor function,</li> </ul>	10%
CLINICAL NEUROSCIENCE	<ul style="list-style-type: none"> <li>• The pathophysiology of neuropsychiatric disorders,</li> <li>• Neuropsychopharmacology,.</li> <li>• The basic principles of genetics, immunology and endocrinology as they apply to the central nervous system.</li> <li>• The basic principles of structural and functional neuroimaging and its application to the diagnosis and assessment of neuropsychiatric disorders.</li> </ul>	20%
NEUROPSYCHIATRIC DISORDERS	<p>For each disorder:</p> <ul style="list-style-type: none"> <li>• The epidemiology of neuropsychiatric disorders in various populations.</li> <li>• The phenomenology of neurologic disorders.</li> <li>• Medically unexplained symptoms and the overlap of neuropsychiatric disorders and neurological disorders</li> <li>• Diagnostic classification of neuropsychiatric disorders, including DSM-based, as well as international based systems</li> <li>• The natural history of the disease process in neuropsychiatric disorders, which enables identification of: a) the severity of the disease; b) the urgency of the need for treatment; c) the stage of the illness; and d) the prognosis.</li> <li>• The ability to carry out brief bedside neurocognitive and functional assessments as well as relevant rating scales.</li> <li>• Carrying out of a full neurological examination relevant to the clinical context.</li> <li>• The assessment of common neuropsychiatric disorders relevant to the clinical context, including the following:</li> </ul>	40%

	<ol style="list-style-type: none"> <li>I. Neurodegenerative disorders</li> <li>II. Movement disorders</li> <li>III. Congenital, developmental, and other childhood onset disorders</li> <li>IV. Vascular disorders</li> <li>V. Traumatic brain injury</li> <li>VI. Hypoxic disorders</li> <li>VII. Nutritional, toxic and metabolic disorders</li> <li>VIII. Infections and related disorders</li> <li>IX. Pain disorders</li> <li>X. Endocrinologic disorders</li> <li>XI. Immune-related disorders</li> <li>XII. Sleep disorders</li> <li>XIII. Brain tumours and hydrocephalus</li> <li>XIV. Neuropsychiatric aspects of Idiopathic psychotic, mood, anxiety, dissociative, and somatoform disorders</li> <li>XV. Substance use disorders</li> </ol> <p>Medication and substance-induced disorders.</p>	
MANAGEMENT	<ul style="list-style-type: none"> <li>• Interpretation of medical, neuro-psychological, psychological and neurodiagnostic investigations and assessments</li> <li>• The use of psychopharmacology, ECT and other physical treatments including the frequency and management of side effects; drug interactions and sub optimal treatment</li> <li>• Competency in performing psychoeducation, CBT, behaviour therapy, supportive therapy and appropriate referral for additional relevant psychotherapies</li> <li>• Ability to assess the needs of carers and to direct to appropriate resources</li> <li>• Principles and practice of neuropsychiatric rehabilitation</li> <li>• Roles of members of the MDT in the assessment and management of neuropsychiatric disorders</li> </ul>	20%
CONTEXTUAL ISSUES AND ETHICS	<ul style="list-style-type: none"> <li>• Principles underlying the choice and integration of services and interventions in neuropsychiatry</li> <li>• The principles of medico-legal aspects to the practice of neuropsychiatry</li> <li>• Prevention and health promotion in Neuropsychiatry.</li> </ul>	10%
<b>TOTAL</b>		100%

## PART B: Competencies

A: CORE COMPETENCIES	DESCRIPTION
Sub-specialist Expert / Clinical Decision-Maker	<ul style="list-style-type: none"> <li>• Demonstrate satisfactory knowledge of the principles and practice of general neurology as applicable to level the level of Neuropsychiatrist</li> <li>• Appropriately use and interpret neurocognitive tests and interpret results. Demonstrate knowledge of brain function, as pertaining to cognitive function, localized functions of the brain and bedside neuropsychiatric assessment. Be able to appropriately refer people for neuropsychological assessment and effectively utilize the results.</li> <li>• Conduct assessments in a range of hospital and community settings, including assessment of the environment.</li> <li>• Perform a functional assessment including activities of daily living and apply it to the determination of the most appropriate form of living arrangements for the individual.</li> <li>• Perform medico-legal assessments with particular emphasis on testamentary capacity, guardianship, curatorship, competency and informed consent</li> </ul>
Communicator	<ul style="list-style-type: none"> <li>• Demonstrate interviewing skills adapted to the needs of neuropsychiatric patients.</li> <li>• This includes the ability to conduct interviews in a manner that facilitates information gathering and the formation of therapeutic alliances.</li> <li>• Recognize and assess relevant features of the family context including the family's role as carers, care giver burden and elder abuse.</li> </ul>
Collaborator	<ul style="list-style-type: none"> <li>• To be able to collaborate effectively with people with neuropsychiatric disorders carers, other health professionals and members of the general public in a variety of settings.</li> </ul>
Manager	<ul style="list-style-type: none"> <li>• To be knowledgeable about the organization and delivery of mental health care to individuals with neuropsychiatric disorders, including the ethical, economic, geographical and political constraints within which it is delivered.</li> <li>• Develop appropriate leadership skills.</li> <li>• To demonstrate skills in clinical governance in terms of providing inputs into policy and service development, and to provide feedback to health managers.</li> <li>• To develop the ability to conduct and complete audit in clinical practice.</li> </ul>
Health Advocate	<ul style="list-style-type: none"> <li>• To be knowledgeable about and be able to apply the principles and processes of mental health promotion and neuro-psychiatric disorder prevention. This includes the ability to inform and educate patients and the public</li> </ul>
Scholar	<ul style="list-style-type: none"> <li>• To be involved in constant critical review of scientific principles and clinical precedent.</li> <li>• To be knowledgeable about the principles of scientific method in practice and the use of this knowledge to evaluate developments in psychiatric research.</li> <li>• To demonstrate competency to undertake research and critically appraise published literature relevant to psychiatry.</li> <li>• To develop the ability to teach, assess and appraise undergraduate and postgraduate students.</li> </ul>
Professionalism	<ul style="list-style-type: none"> <li>• To be knowledgeable about the principles of medical ethics, the development of professional attitudes and mechanisms for the development and maintenance of clinical competence, acknowledging the need for professional and public accountability.</li> </ul>

<b>B: COMPETENCIES PER MODULE</b>	<b>DESCRIPTION</b>
Basic Neurosciences including neuroanatomy, neurophysiology, neurochemistry	<ol style="list-style-type: none"> <li>1. A sound knowledge of neurosciences will result in a clinician able to link clinical symptoms and signs with underlying brain dysfunction. Broadly speaking, the neurologic signature of disease results in patterns of clinical neuropsychiatry. These patterns correspond to macro- and microscopic neuropathology. In patients with known / pre-existing neurologic disorders, knowledge of the neural substrate leads to improved diagnosis and targeted treatments; in patients with unknown neurologic disease, the clinical presentation may facilitate a more rapid diagnosis and treatment of the underlying condition.</li> <li>2. Insight into brain structure and function enables the clinician to integrate clinico-pathologic processes and accordingly to utilize special investigations appropriately.</li> <li>3. Neuropsychiatric disorders may respond differently to conventional treatments and require a tailored approach to best available evidence. A competent clinician should be able to demonstrate an ability to appropriately select, monitor and adjust psychotropic agents according to the patient's individual clinical presentation.</li> </ol>
<b>CLINICAL NEUROSCIENCE</b>	<ol style="list-style-type: none"> <li>1. Accurately describe neuropsychiatric features of neurologic disease and link their relationship to the underlying condition in terms of time course, severity, phenomenology and prognosis.</li> <li>2. Assess medically unexplained neurological symptoms, including use of appropriate special investigations to rule out another medical condition.</li> <li>3. Construct a clear but comprehensive diagnostic formulation, incorporating the underlying neurologic disease with its neuropsychiatric manifestations.</li> <li>4. To generate an appropriate management plan targeting key symptom clusters, psycho-social needs and long term rehabilitation.</li> <li>5. Communicate the conclusions of Neuropsychiatric assessments clearly, accurately and in appropriate detail to neuroscience colleagues, GPs, members of the MDT, and patients and families.</li> <li>6. Demonstrate competence in writing appropriate reports including NP reports for the court and be able to act as an expert witness.</li> <li>7. Appreciate the different professional roles of members of the specialist NP service.</li> <li>8. Demonstrate leadership and ability to work within the NP multidisciplinary team.</li> </ol>
<b>NEUROPSYCHIATRIC DISORDERS</b>	<ol style="list-style-type: none"> <li>1. To have a broad overview of common and important neurologic diseases with respect to their epidemiology, aetiology, clinical features and management.</li> <li>2. To be able to systematically appraise and record the presence of cognitive, affective, psychotic, and behavioural/emotional disorders in disorders presenting with another medical condition.</li> <li>3. To utilize investigations.</li> </ol>

MANAGEMENT	<ol style="list-style-type: none"> <li>1. To initiate, and maintain where appropriate, biological, psychological and social management, of neuropsychiatric disorders.</li> <li>2. To integrate management with neuroscience colleagues, as well as referrers and providers at primary and secondary levels of care.</li> <li>3. To report, measure and audit clinical services to health authorities and managers, and continuously improve and refine services.</li> </ol>
CONTEXTUAL ISSUES AND ETHICS	<ol style="list-style-type: none"> <li>1. An appreciation of resource allocation within healthcare systems is key to maximizing outcomes. The appreciation of packages of care in neuropsychiatric disorders is central to effective utilization of resources. Similarly, an appreciation of the patients' cultural, language and education are critical to effective diagnosis and treatment recommendations.</li> <li>2. A sub-specialist neuropsychiatrist must uphold the highest level of medical ethics, and accordingly must be knowledgeable of common principles of ethics, as well as ethics of research.</li> </ol>

## **PART C: Formative and Summative Assessments**

The examination comprises two components, a written and a clinical section; the written examination must be passed in order to be eligible for the clinical examination.

### **1.0 CONDUCT OF THE EXAMINATION**

#### **1.1. WRITTEN**

- 1.1.1 ONE written paper of 3 hours comprising a minimum of four questions, the format of which may vary..
- 1.1.2. Candidates must write the paper at one single sitting of the examination of the Colleges of Medicine of South Africa
- 1.1.3. In order to **pass** the written paper and be eligible for the clinical component of the examination, a candidate must:

achieve an average of 50% or more for the paper AND  
achieve a minimum of 50% each for 3 of the 4 questions

#### **1.2. CLINICAL/PRACTICAL/ORAL EXAMINATIONS COMPRISING:**

- 1.2.1 Either: one long case and one short case; OR up to four short cases or clinical stations PLUS an oral examination, OR an OSCE which may include clinical and oral stations
- 1.2.2 The clinical/practical component will be weighted 70% and the oral 30%
- 1.2.3 An average combined mark of 50% is required in the Clinical/Practical/Oral examination in order to pass.

Criteria for **passing** the examination:

BOTH the written AND the combined Oral/Clinical/Practical examinations must be separately passed as defined above, each with 50% or more. If an OSCE based examination is not followed then the clinical /practical component will be weighted 70% and the oral examination 30%.