

## NARS for MD and PhD

أ - المعرفة والفهم:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
Anatomy Physiology Pathology Innovative spinal surgery Innovative vascular surgery Innovative skull base surgery	A1,A2,A3,A9	Full time academic study and research It is essential that trainees achieve both common and specialty-specific competence to be eligible to complete to final stage	1. The theories, concepts and modern knowledge in the field of specialization and other related field
THESIS	A7,A8	The neurosurgical curriculum will accommodate a range of academic training	2. The basics, methodologies, ethics of scientific research and its versatile tools
THESIS	A7,A8	Full time academic research or training fellowships to thesis level	3. The moral and legal ethics of the professional practice in the area of specialization
NEUROSURGERY {MODULES 1.11}	A4,A5	To provide higher specialty training in the specialty with attainment of knowledge , skills and professional behaviours	5. The concepts and principles of quality of the professional practice in the area of specialization
			6. The knowledge on the effects of professional practice on the environment and ways of development and maintenance of the environment

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ب - القدرات الذهنية :

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Anatomy Physiology	B1,B2	Trainees will be able to resuscitate when necessary , assess through a full neurological history and examination , establish a differential diagnosis and interpret investigations for patients with common	1) Analyze and evaluate of information in the field of specialization and make full use of such information to solve problems

		Neurological disorders	
NEUROSURGERY {MODULES 1,11}	B3,B4	They will be capable of taking full responsibility for continuing care of patients either selective or in emergency	2) Solve specific problems on the basis of limited and contradictory information
THESIS	B5	Professional development in one or more of the special interest areas of neurosurgery as in head injury research	3) Carry out a research studies to add new information to the knowledge
THESIS	B6	Full time academic research or training fellowships to thesis level	4) Write scientific papers
NEUROSURGERY {MODULES 1,11}	B4	Management strategies to reduce the risk of intraoperative re bleeding in presence of suspected aneurysm or AVM	5) Assess and analyze risks in the field of specialization
NEUROSURGERY {MODULES 1,11}	B7	They will be competent to undertake other procedures in their field under the mentorship of a senior colleague	6) Plan to improve performance in the field of specialization
NEUROSURGERY {MODULES 1,11}	B3	To develop competence to manage an additional range of elective and emergency conditions They will develop their surgical judgment , decision making and operative competencies	7) Make good decisions in different professional aspects
	B4	To acquire professional competences	8) Have innovation/creativity
NEUROSURGERY {MODULES 1,11}	B8,9,10,11	The emphasis will change as trainees progress through the programme from acquiring neuroscience knowledge and competencies to developing technical operative skills and surgical judgment	9) Discuss and negotiate in high level of confidence based upon proofs and evidences

### ج - المهارات العملية:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
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NEUROSURGERY {MODULES 1,11}	C2	They will be capable of taking full responsibility for the continuing care of patients and be proficient in all aspects of clinical and emergency operative management of patients presenting with the neurological disorders	1) Apply modern and principle professional skills in the area of specialization
NEUROSURGERY {MODULES 1,11}	C1	Trainees will be competent in all aspects of the assessment	2) Write and evaluate technical reports
NEUROSURGERY {MODULES 1,11}	C3	Trainees will be competent in all aspects of the assessment and clinical management of major disorders	3) Adopt assessment methods and tools existing in the area of specialization.
NEUROSURGERY {MODULES 1,11} NEUROSURGERY {MODULES 111,1V}	C2,C5	They will demonstrate sound judgment when seeking more senior support , prioritizing medical interventions and escalating the level of medical care	4) Use of the appropriate technological means to serve the professional practice.
NEUROSURGERY {MODULES 111,1V}	C6	They will develop their surgical judgment , decision making and operative competencies	5) Plan to improve the performance of the professional practice and development of the performance of others

#### د- مهارات الاتصال:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
NEUROSURGERY {MODULES 1,11}	D1	Almost all neurosurgical consultants are involved in the delivery of emergency services and must therefore be competent to wide range of adult conditions and to provide basic emergency and pediatric care	1) Communicate effectively in different aspects
NEUROSURGERY {MODULES 1,11} NEUROSURGERY {MODULES	D3,D4	Clinical placements for initial stage of neurosurgical trainees will include acute	2) Demonstrate efficient IT capabilities in such a way that serves in the development of the

111,1V}		neurology service .neurophysiology , neurorehabilitation and neurointensive care	professional practice
NEUROSURGERY {MODULES 111,1V}	D4	Regular exposure to neuroradiology and neuropathology through multi-disciplinary tea meetings and case discussions	3) Manage the scientific meetings and manage time
NEUROSURGERY {MODULES 111,1V}	D5	Trainees will be continuously assessed and structural reports from Assigned Educational Supervisors will contribute to the annual Review of competence progression (ARCP)	4) Adopt self-assessment and Adopt life-long learning
NEUROSURGERY {MODULES 111,1V}	D5	A core neuroscience teaching programme incorporating the core neuroscience subjects with an emphasis on the assessment and management of the common neurological presentations	5) Use different resources for information and knowledge
NEUROSURGERY {MODULES 1,11}	D2	Working in multidisciplinary teams with colleagues in different specialties	6) Collaborate effectively within multidisciplinary team and lead team works
NEUROSURGERY {MODULES 111,1V}	D4	Some trainees during their period of full time research may want to carry out some clinical or on call, on successful completion of a PH or M D they will either return to their clinical programme , apply for an academic clinical lecturer or clinician scientist post	7) Demonstrate a high level of competence in the management of time and scientific meetings