



Course Specifications

Course Title:	Integrated Neuroscience
Course Code:	INS592
Program:	Bachelor of Medicine, Bachelor of Surgery (MBBS)
Department:	NA
College:	College of Medicine
Institution:	Alfaisal University

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A. Course Identification

1. Credit hours: 9 (2+14+0)
2. Course type
a. University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: Sem 9/10, Year 5
4. Pre-requisites for this course (if any): Sem 7 and 8
5. Co-requisites for this course (if any): None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	38	17%
2	Clinics, Case presentations, Bed side teaching, Morning reports, Grand rounds, Student presentations, SGDs	180	83%

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	38
2	Laboratory/Studio	
3	Tutorial	180
4	Others (specify)	
	Total	218

B. Course Objectives and Learning Outcomes

1. Course Description

INS 592 is an integrated clinical clerkship to learn and practice neurological and psychiatric disorders, with rotations in adult and pediatric neurology, neurosurgery, and psychiatry. Students rotate for two weeks in each of the four departments/sections during the clerkship.

2. Course Main Objective

To learn and practice neurological and psychiatric disorders, with rotations in adult and pediatric neurology, neurosurgery, and psychiatry.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	

CLOs		Aligned PLOs
1.1	Acquisition of essential knowledge & competency for evaluation, diagnosis and plan initial treatment for patients with neurological diseases.	PLO4,6
1.2	Assess clinical presentations and construct differential diagnosis for neurologic and psychiatric disorders.	PLO11, PLO16,20,21
1.3	Learn the application of scientific clinical reasoning and evidence base to medical practice.	PLO12,18,30
1.4	Recognize and manage neurological and psychiatric emergency conditions encountered in adults and children.	PLO6,17,20
1.5	Acquire knowledge of preventive aspects of the common diseases and ways to implement them.	PLO20,21
1.6	Evaluate & analyze prognosis and clinical outcomes and enhance clinical information management.	PLO18
2	Skills	
2.1	Take relevant history and interpret it.	PLO13
2.2	Perform appropriate physical examination and interpret it.	PLO14
2.3	Interpret investigations and reach a diagnosis for neurological and psychiatric disorders.	PLO5,11,18
2.4	Develop and implement a management and work-up plan.	PLO11,18,23
2.5	Carry out clinical procedures for neurological and psychiatric disorders.	PLO15
2.6	Promote patient engagement & communication.	
2.7	Communicate effectively in a medical context with patients, relatives, colleagues and other health workers.	PLO24
2.8	Develop interpersonal competencies (communication and collaboration), cognitive skills (problem solving, critical thinking and reflectivity), work-related skills (planning and time management), and professionalism (integrity, sense of responsibility, respect and empathy).	PLO19,25,27
3	Values	
3.1	Respect and maintain privacy of the patients and their families.	
3.2	Adhere to the attendance policy.	
3.3	Demonstrate interpersonal skills necessary to maintain professionalism, communicate appropriately with patients, their families, and other medical and paramedical personnel involved in patient care.	PLO25,27,28

C. Course Content

No	List of Topics	Contact Hours
1	Neurological examination: 1. Screening and focused exam in adult 2. Pediatrics & Neonate 3. Patient with decrease level of consciousness. 4. Brain death	45
2	Anatomical Localization: 1. Cerebral hemisphere 2. Posterior fossa/ Brain stem & Cerebellum 3. Spinal cord	45

	4. Nerve root/Plexus/Peripheral nerves 5. Neuromuscular junction 6. Muscles	
3	Systematic approach & Differential diagnosis of presenting symptoms: 1. Weakness 2. Dysphasia, Dysarthria, Dysphagia 3. Involuntary movements 4. Gait disturbance 5. Loss of vision & Ophthalmoplegia 6. Cranial Nerves deficits 7. Dementia & Acute mental status changes 8. Headache & pain 9. Sensory disturbances 10. Developmental disorders	45
4	Specific Neurosciences teaching topics: 1. Increased intracranial pressure/ Brain Tumors 2. Subarachnoid Hemorrhage 3. Stroke 4. Head trauma 5. Seizure, status epilepticus 6. CNS infection 7. Encephalopathy 8. Multiple sclerosis (WMD) & GBS 9. Movement disorders 10. Headache, Migraine 11. Cranial nerves deficits 12. Spinal cord & Peripheral nerves syndromes	45
5	Psychiatric disorders 1. Anxiety Disorders 2. Attention Deficit Disorders 3. Mental Retardation & Learning Disorders 4. Mood Disorders 5. Pervasive Developmental Disorders 6. Psychiatric Treatments 7. Schizophrenia & Other Psychotic Disorders 8. Somatoform Disorders	38
Total		218

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Acquisition of essential knowledge & competency for evaluation, diagnosis and plan initial treatment for patients with neurological diseases.	Lectures, bedside teaching, small group discussions, student presentations, clinics	Continuous, formative and summative assessment
1.2	Assess clinical presentations and construct differential diagnosis for neurologic and psychiatric disorders.	Lectures, bedside teaching, small group	Continuous, formative and

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
		discussions, student presentations, clinics	summative assessment
1.3	Learn the application of scientific clinical reasoning and evidence base to medical practice.	Lectures, small group discussions, student presentations, bedside teaching	Continuous, formative and summative assessment
1.4	Recognize and manage neurological and psychiatric emergency conditions encountered in adults and children.	Lectures, small group discussions, student presentations, bedside teaching	Continuous, formative and summative assessment
1.5	Acquire knowledge of preventive aspects of the common diseases and ways to implement them.	Lectures, small group discussions, student presentations, bedside teaching	Continuous, formative and summative assessment
1.6	Evaluate & analyze prognosis and clinical outcomes, and enhance clinical information management.	Lectures, small group discussions, student presentations, bedside teaching	Continuous, formative and summative assessment
2.0	Skills		
2.1	Take relevant history and interpret it.	Bedside teaching, clinics	Continuous, formative and summative assessment
2.2	Perform appropriate physical examination and interpret it.	Bedside teaching, clinics	Continuous, formative and summative assessment
2.3	Interpret investigations, and reach a diagnosis for neurological and psychiatric disorders.	Lectures, small group discussions, student presentations, bedside teaching	Continuous, formative and summative assessment
2.4	Develop and implement a management and work-up plan.	Lectures, small group discussions, student presentations, bedside teaching	Continuous, formative and summative assessment
2.5	Carry out clinical procedures for neurological and psychiatric disorders.	Bedside teaching, small group discussions, student presentations, clinics	Continuous, formative and summative assessment
2.6	Promote patient engagement & communication.	Bedside teaching, clinics	Continuous, formative and summative assessment
2.7	Communicate effectively in a medical context with patients, relatives, colleagues and other health workers.	Bedside teaching, clinics	Continuous, formative and summative assessment
2.8	Develop interpersonal competencies (communication and collaboration),	Bedside teaching, small group	Continuous, formative and

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	cognitive skills (problem solving, critical thinking and reflectivity), work-related skills (planning and time management), and professionalism (integrity, sense of responsibility, respect and empathy).	discussions, student presentations, clinics	summative assessment
3.0	Values		
3.1	Respect and maintain privacy of the patients and their families.	Clinics, bedside teaching	Continuous, formative and summative assessment
3.2	Adhere to the attendance policy.		Continuous assessment
3.3	Demonstrate interpersonal skills necessary to maintain professionalism, communicate appropriately with patients, their families, and other medical and paramedical personnel involved in patient care.	Bedside teaching, clinics	Continuous assessment

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Student presentation	1-9	5%
2	Bedside teaching and small group discussion	1-9	5%
3	OSCE	9	45%
4	Final Exam	9	45%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

The CoM program established its own mentorship program that employs all full-time faculty as mentors. Through this program, every medical student in the program is assigned a mentor at the beginning of their first semester of studies. The program has a broad scope covering academic advising and counseling. The mentors handle all aspects related to academic advising, including academic planning, academic performance review, advice on course drop or withdrawal, study skills, and time management.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Merritt's Neurology
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Essential References Materials	<ul style="list-style-type: none"> • Adams & Victor, Principles of Neurology • Harrison’s Text book of Medicine (Neurology section) • Illustrated Neurology and Neurosurgery • Mark Greenberg, Hand book of Neurosurgery • Nelson Text book of Pediatrics, Neurology section
Electronic Materials	PowerPoint presentations uploaded on Alfaisal E-learning Portal <ul style="list-style-type: none"> • Ovid Library • Pub-Med • Up-to-date
Other Learning Materials	<ul style="list-style-type: none"> • Neurology • Continuum • Journal of Neurosurgery • Neurosurgery • Child Neurology

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms, Conference rooms
Technology Resources (AV, data show, Smart Board, software, etc.)	AV (Audio-Visual), Smartboard, Moodle (E-learning Management)
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course and Faculty Evaluation Survey	Students	Survey

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	