كلية الطب
وحدة ضمان الجودة

Neurology and Psychiatry Department
Faculty of Medicine

Master (MSC) Degree Program and Courses Specifications for Neurology and Psychiatry

(According to currently applied Credit point bylaws)

Neurology and Psychiatry department
Faculty of medicine
Assiut University
2021-2022/2022-2023

Contents	
Item	***Page***

Master degree of Neurology and Psychiatry

A. Basic Information

- **Program Title: Master degree of Neurology and Psychiatry.**
- **Nature of the program: Single.**

Responsible Department: Neurology and Psychiatry Department- Faculty of Medicine- Assiut University.

- **Program Academic Director (Head of the Department): Prof.Dr. Alaa Darweesh.**
- **Coordinator (s):**

Principle coordinator: Prof. Dr. Tarek Rageh
Dr.Yasser El Serogy
Assistant coordinator (s) Prof. Dr. Noha Abo-Elfetoh.
Prof.Dr.Hossam Khalifa.

- Internal evaluators: Prof. Dr. Mahmoud Raafat
Prof Dr Wagih Abdel Naser
Prof.D Nageh Foly
Prof. Dr. Khaled Ahmad ElBehieh

- **External evaluator**

Professor Dr Amal Tawfeek (El MeniUniversity**).**
-Prof Dr. Heamiud Moustafa Azab(Souhag University).

- **Date of Approval by the Faculty of Medicine Council of Assiut University: 23-9 2014**
- **Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University:27-11-2022.**
- **Total number of courses: Obligatory 7 courses**
First part: 6 courses.
Second part: 1course
One elective course

B. Professional Information

1- Program aims

I/1 I/1 To enable candidates to keep with international standards of Neurological and Psychiatric patients care by teaching high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area "neurological disorders , Psychiatric disorders, Neurological and Psychiatric emergencies, Neuroelectrophysiology and Neuroimaging studies, interventional Neurology and Psychiatry , Addiction and Psychometry Lab" enabling the candidates of making appropriate referrals to a sub-specialist.

I/2. Provide residents or candidates with fundamental knowledge of Stroke and Neurological intensive care unit as regards; equipments, techniques, indications, contraindications and training skills of different neurological intensive care techniques and interventions.

1/3. Provide residents or candidates with knowledge in diagnostic and interventional Neurology and Psychiatry. These include use of different equipments, techniques in neuroelectrophysiology, Psychiatric and neuroimaging units , indications, contraindications and training skills of different techniques and tools used for diagnosis or treatment or assessment of severity of common Neurological and Psychiatric disorders.

1/4. Provide the residents or candidates with updated knowledge of basic and clinical supportive sciences of neurological and psychiatric disorders and applied aspects through interpretation reports of Psychometry lab or Neuroelectrophysiology or Neuroimaging lab and choose the appropriate treatment according to the reported findings and appropriate investigatory tools for follow up.

1/5. To introduce the residents or candidates to the basics of scientific medical research for neuropsychiatry.

1/6. To enabling them to start professional careers as Neuropsychiatrist in Egypt.

- Making them recognized as Neuropsychiatrist abroad.
- Enabling them to pursue higher studies and subspecialties.
- Enabling them to understand and get the best of published scientific research and do their own.
-Updating their knowledge and self learning.
- Fellow the ethical standard of medical and clinical practice of patient care and research work according to Local Ethical Committee.

2-Intended learning outcomes (ILOs) *for the whole program*:

2/1Knowledge and understanding:

A. Explain the essential facts and principles of relevant basic sciences including, Neuroanatomy and Emberyology,Gentics, Neurophysiology, Biochemistry, Neuropathology , Neuropsychopathology and Neuropharmacology related to Neurology and Psychiatry.

B. Mention essential facts of clinically supportive sciences including internal medicine and general and special psychology related to Neurology and Psychiatry.

C. Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment the common diseases and situations related to Neurology and Psychiatry.

D. Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Neurology and Psychiatry.

E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Neurology and Psychiatry.

F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Neurology and Psychiatry.

G. Mention the ethical and scientific principles of medical research methodology.

H. State the impact of common health problems in the field of Neurology and Psychiatry on the society and how good clinical practice improves these problems.

2/2 Intellectual outcomes

A. Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of Neurology and Psychiatry.

B. Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Neurology and Psychiatry.

C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the Neurology and Psychiatry field.

D. Formulate management plans and alternative decisions in different situations in the field of the Neurology and Psychiatry.

2/3 Skills

2/3/1 Practical skills (Patient Care)

A. Obtain proper history and examine patients in caring and respectful behaviors.

B. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to Neurology and Psychiatry.

C. Carry out patient management plans for common conditions related to Neurology and Psychiatry.

D. Use information technology to support patient care decisions and patient education in common clinical situations related to Neurology and Psychiatry**.**

E. Perform competently non invasive and invasive procedures considered essential for the Neurology and Psychiatry.

F. Provide health care services aimed at preventing health problems related to Neurology and Psychiatry.

G. Provide patient-focused care in common conditions related to Neurology and Psychiatry, while working with health care professionals, including those from other disciplines

H. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)

2/3/2 General skills

Including:

- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice

Practice-Based Learning and Improvement

A. Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).

B. Appraises evidence from scientific studies.

C. Conduct epidemiological Studies and surveys.

D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.

E. Facilitate learning of students and other health care professionals including their evaluation and assessment.

Interpersonal and Communication Skills

F. Maintain therapeutic and ethically sound relationship with patients.

G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.

H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.

I. Work effectively with others as a member of a health care team or other professional group.

Professionalism

J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society

K. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices

L. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

Systems-Based Practice

M. Work effectively in relevant health care delivery settings and systems including good administrative and time management.

N. Practice cost-effective health care and resource allocation that does not compromise quality of care.

O. Assist patients in dealing with system complexities.

3- Program Academic Reference Standards (ARS) (Annex 2)

Academic standards for master degree in Neurology and Psychiatry

Assiut Faculty of Medicine developed master degree programs' academic standards for different clinical specialties.

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program.

These standards were approved by the Faculty Council on 17-6-2009. These standards were revised and approved without changes by the Faculty Council on 23-9-2014.These standards were recently revised and reapproved without changes by the Faculty Council on 27-11-2022.

4- Program External References(Benchmarks)

1. ACGME (Accreditation Council for Graduate Medical education).
http://www.acgme.org/acWebsite/navPages/nav_Public.asp
2. Neurology Residence Program, Department of Neurology and Psychiatry , Saint Louis University School of Medicine (http://neuroandpsych.slu.edu.).

Comparison between master degree Neurology and Psychiatry program, faculty of Medicine , Assiut University and external reference		
Item	Assiut University, Faculty of Medicine Master degree Neurology and Psychiatry	Saint Louis University School of Medicine, Department of Neurology and Psychiatry, Neurology Residence Program
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	3-5 years	3 years
Requirement	different	different
Program structure	Different Credit points.	Different Residence program

Comparison between master degree Neurology and Psychiatry program, faculty of Medicine , Assiut University and external reference		
Item	Assiut University, Faculty of Medicine Master degree Neurology and Psychiatry	Saint Louis University School of Medicine, Department of Neurology and Psychiatry, General Residence Psychiatry Program
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	3-5 years	3 years
Requirement	different	different
Program structure	Different Credit points.	Different Residence program

5. Program Structure and Contents

A. Duration of program: 3 – 5 years

B. Structure of the program:

Total number of credits points : 180 (20 out of them for thesis)

Didactic# 40 (22.2 %), practical 120 (66.7%), thesis 20 (11.1%), total 180

First part

Didactic 14 (35 %), practical 24 (60 %), elective course 2 CP (5%), total 40

Second part

Didactic 24 (20%), practical 96 (80 %), total 120

 # Didactic (lectures, seminars, tutorial)

<u>According the currently applied bylaws:</u>

Total courses 160 CP

Compulsory courses: 98.9%

Elective course: 2 credit point: 1.1%

	Points	**% from total**
1) Basic science courses	24	13.3%
Humanity and social courses	2	1.1%
2) Speciality courses	134	74.5%
3) Others (Computer,….)	-	-
4) Field training	120	66.7%
Thesis	20	11.1%

C. Program Time Table

A. Duration of program 3 years maximally 5 years divided into

- **Part 1: (One year)**

  Program-related basic science courses and ILOs + elective courses

  Students are allowed to sit the exams of these courses after 12 months from applying to the M Sc degree.

  One elective course can be set during either the 1st or 2nd parts.

- **Thesis**

  For the M Sc thesis;

  MSc thesis subject should be officially registered within 6 months from application to the MSc degree,

  Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;

  It should be discussed and accepted before passing the second part of examination)

- **Part 2 (2 years)**

Program –related speciality courses and ILOs
Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.

The students pass if they get 50% from the written exams and 60% from oral and clinical/practical exams of each course and 60% of summation of the written exams, oral and clinical/practical exams of each course
Total degrees 1900 marks.
700 marks for first part
1200 for second part
Written exam 40% - 70%.
Clinical/practical and oral exams 30% - 60%.

Curriculum Structure: (Courses):
Curriculum Structure: (Courses / units/ rotations):

Year 1

The first year of the fellowship is primarily for basic science related medical knowledge (studied in specialized courses over 6-12 months in collaboration with basic sciences departments of Assiut Faculty of Medicine) and a clinical year during which the candidates gain experience with a wide variety of patients in inpatient and outpatient settings, develop proficiency in the performance and appropriate utilization of various procedures, and develop proficiency in the patients care of common neurological and psychiatric disorders and critical inn patients in emergency units , neurological intensive care, and psychiatric emergency units and appropriate investigations for clinical approach of these mentioned clinical condition . Throughout the year, emphasis is placed on developing: 1) an understanding of basic mechanisms and pathophysiology of neurological diseases, neurological critical illness and basics of neurelectrophysilogy and neuroimaging, psychology and psychopathology of psychiatric disorders 2) the ability to efficiently formulate clinical assessments and therapeutic plans; 3) the ability to critically analyze the relevant medical literature; and 4) skills in

communicating with nursing and medical staff as well as house staff.

The first year ,candidate spends the year rotating among different services: 1) neurological Wards, Neurological intermediate care (Medical Emergency)and neurology outpatient clinics at Assiut University Hospital; 2) Psychiatric wards, Psychiatric emergency unit and outpatients clinics of Psychiatry at Assiut University Hospital .These rotations are briefly described below.

Year 2 and 3.

Although the primary focus of the second and third year is the development of skills and experience in research (see below), senior candidates continue to participate in clinical skillful activities and certain procedures. First, they maintain their longitudinal outpatient and inpatient clinic experience throughout these years. Senior candidates will also actively participate in the regular weekly scientific seminars and collaborate with those fellows in their first year. In addition, candidates rotate through the different inpatient clinical services approximately 3 months on clinical rotations (on neurological critical care emergency unit and procedures rotation, Neuroelectrophysiology unit, medical emergency unit, Psychiatric emergency and outpatient clinics, addiction unit and Psychometry lab.). This rotation complements the previous inpatient and outpatient experiences.

Approximately by the end of the first year, candidates are expected to identify a research area in which the subsequent two years will be focused. Together, the trainee and supervisors develop a project for investigation that is of interest to the trainee and within the expertise of the faculty member; in certain instances, joint mentorship provided by two faculty members within the Division, or by one divisional faculty member and a collaborator from another unit, is appropriate. By the beginning of the second year, the candidate presents a conference in which

he/she synthesizes existing knowledge, presents the problem for investigation, and describes the proposed plan of investigation and intervention. The faculty members and fellows in attendance provide feedback to the fellow and supervisors about the proposed project; this process of peer review provides a useful experience for the fellow and often strengthens the experimental approach.

During the second and third years, the trainee carries out the proposed work in the clinical research facilities of the faculty mentor(s). The trainee also benefits from interactions with other trainees, technicians, collaborating investigators and interventional neurology and Psychiatry. The trainee also participates in laboratory meetings and journal clubs specific to individual research groups. Presenting research findings at regional and national meetings and submitting work for publication are both important aspects of the investigative endeavor. The trainee will receive guidance and specific assistance in learning to prepare data for oral and written presentation, to prepare graphics, and to organize talks and prepare slides. Throughout the research training period, it is anticipated that the fellow will assume increasing intellectual responsibility , technical and clinical independence.

Research Pathway

Selection of a research project and supervisors is subject to the approval of the Neurology and Psychiatry Department council approval and vice-Dean of post graduate studies of the faculty as officially regulated. Fellows may elect clinical trial, meta-Analysis/ systematic Review, clinical audit or epidemiological studies -based research training pathways. For all Master degree candidates, a research advisory committee will be selected by the fellow based on the approved regulatory rules of the faculty council. This committee will monitor the progress of research fellows and provide advice regarding research training and career development.

D. Curriculum Structure: (Courses):

courses of the program:

courses	Course Code	Core Credit points		
		Lectures	training	total
First Part				
Basic science courses (8CP)				
Course 1: Neuroanatomy and Embryology& Genetics.				
Unit 1: Neuroanatomy and Embryology	**NAP220A#**	**2.5**	**-**	**2.5**
Course 2: Neurophysiology& Biochemistry.	**NAP220B#**	**2**	**-**	**2**
Course 3: Neuropathology& Neuropsychopathology.	**NAP220C#**	**2**	**-**	**2**
Course 4: Neuropharmacology	**NAP206**	**1.5**	**-**	**1.5**
General clinical compulsory courses (6 points)		**6**		
Course 5: Internal medicine.	**NAP218**	**3**	**6**	**9**
Course 6: General & special Psychology.	**NAP220D**	**3**	**4**	**7**
Elective courses*	2CP			
- Elective course				
Clinical training and scientific activities:				
Clinical training and scientific activities:(10 CP)			10	
Clinical training and scientific activities in	**NAP220E**		14	

Speciality course Neurology &Psychiatry (14 CP)				
Total of the first part		**16**	**24**	**40**
Second Part	Speciality courses 24 CP Speciality Clinical Work (log Book) 96 CP			
Speciality Courses Course 7 **Neurology &Psychiatry**	**NAP220E**	24		
Training and practical activities in Neurology &Psychiatry (96 CP) (96 CP)	**NAP220E**		96	
Total of the second part		**24**	**96**	**120**
Thesis		**20 CP**		
Total of the degree		**180 CP**		

 # Didactic (lectures, seminars, tutorial)

* Elective courses can be taken during either the 1st or 2nd parts.

Student work load calculation:

Work load hours are scheduled depending on the type of activities and targeted competences and skills in different courses

Elective Courses#:

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education
- Quality assurance of clinical practice.
- Hospital management

One of the above mentioned courses are prerequisites for fulfillment of the degree.

Thesis:

20 CP are appointed to the completion and acceptance of the thesis.

Course 7: Neurology and Psychiatry

Module/ Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	training	Total
-Module 1 Neurological disorders.(8-9month)	29.1%	1,2&3	7	36	43
-Module 2 Psychiatric disorders.(8-9month)	29.1%	1,2&3	7	36	43
-Module 3 Neurological and Psychiatric emergencies (10month).	10.4%	2&3	2.5	10	12.5
-Module 4 Neuroelectrophysiology and Neuroimaging (2 month).	10.4%	2&3	2.5	10	12.5
-Module 5 Interventional Neurology and Psychiatry (2month).	10.4%	2&3	2.5	10	12.5
-Module 6 Addiction (2 month).	6.25%	1,2,3	1.5	5	6.5
- Module 7 Psychometry Lab (2month).	4.16%	1, 3	1	3	4
Total No. of Units:	100%	3 years	24	110	134

** Different Courses ILOs are arranged to be studied and assessed in the 1st and 2nd parts of the program as scheduled in the program time table.

6. Courses Contents (Annex 1)

The competency based objectives for each course/module/rotation are specified in conjunction with teaching/training methods, requirements for achieving these objectives and assessment methods.

See Annex 1 for detailed specifications for each course/ module

7-Admission requirements

- **Admission Requirements (prerequisites) if any :**

I. General Requirements:

a. MBBCh Degree form any Egyptian Faculties of Medicine
b. Equivalent Degree from medical schools abroad approved by the Ministry of Higher Education
c. One year appointment within responsible department (for non Assiut University based registrars)

II. Specific Requirements:

a. Fluent in English (study language)

VACATIONS AND STUDY LEAVE

The current departmental policy is to give working residents - 2weeks week leave prior to first/ second part exams.

FEES:

As regulated by the postgraduate studies rules and approved by the faculty vice dean of post graduate studies and the faculty and university councils.

8-Progression and completion requirements

- Examinations of the first part could be set at 12 months from registering to the MSc degree.
- Examination of the second part cannot be set before 3 years from registering to the degree.
- Discussion of the MSc thesis could be set after 1 year from officially registering the MSc subject before setting the second part exams.
- The minimum duration of the program is 3 years.

The students are offered the degree when:

1. Passing the exams of all basic science, elective and speciality courses of this program as regulated by the post graduates approved rules by the faculty council.
2. Completing all scheduled CP and log book (minimum 80%).
3. Discussion and acceptance of the MSc thesis.

9- Program assessment methods and rules (Annex IV)

Method	ILOs measured
Written examinations: **Structured essay questions** **Objective questions:** **MCQ** **Problem solving**	**K & I**
Clinical: **Long/short cases** **OSCE**	**K ,I, P &G skills**
Structured oral	**K ,I &G skills**
Logbook assessment	**All**
Research assignment	**I &G skills**

Weighting of assessments:

Courses		Degrees			
First Part	Course code	Written Exam	Degree		Total
			Oral Exam*	Practical / Clinical Exam	
First part					
Basic academic Courses:					
Course 1: **Neuroanatomy and Emberyology & Genetics**	**NAP220A#**	62(50+12)	63	-	125
Course 2: Neurophysiology& Biochemistry	**NAP220B#**	50	50	-	100
Course 3: Neuropathology&Psychopathology	**NAP220C#**	50	50	-	100
Course 4: Neuropharmacology	**NAP206**	37	38	-	75
General clinical courses					
Course 5:Internal medicine	**NAP218**	60	30	60	150
Course 6: General & special Psychology	**NAP220D**	60	30	60	150
Total of the first part					
Second Part					
Speciality Courses:					
Course 7: Neurology and Psychiatry	**NAP220E**	**480**	**240**	**480**	**1200**
Total of the degree					
Elective course					

* 25% of the oral exam for assessment of logbook

700 marks for first part
1200 for second part
Written exam 40% (480marks).
Clinical/practical and oral exams 60% (720 marks).
Elective course 100.

Examination system:

First part:

- Written exam 3 hours in Neuroanatomy and Emberyology & Genetics+ oral exam.
- Written exam 2 hours in Neurophysiology&Biochemistry + oral exam.
- Written exam 2hours in Neuropathology& Psychopathology+ oral exam
- Written exam 2 hours in Pharmacology + oral exam.
- Written exam 3 hours in Internal medicine + oral and clinical exam.
- Written exam 3 hours in general and special Psychology+ oral exam.

Second part:

- Written exam four papers 3 hours for each in Neurology and Psychiatry(2 papers for neurology + 2 papers 120 marks for each paper) + Oral exam[120 marks for neurology(40 marks for investigations + 2 oral settings 40 marks for each)+120 marks for Psychiatry(40 marks for investigations; Psychometry reports + 2 oral settings 40 marks for each)] + Clinical & Practical exam(120 marks for long + 120 for 2 short cases 60 marks) for each neurology and psychiatry settings.

Elective courses

- Written exam one paper 1 hour in Elective course + Oral & Practical exam

10-Program evaluation

By whom	method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits Questionnaires	#
Senior students	Questionnaires	#
Alumni	Questionnaires	#

#Annex 5 contains evaluation templates and reports (Joined in the departmental folder).

11-Declaration

We certify that all of the information required to deliver this program is contained in the above specification and will be implemented.
All course specifications for this program are in place.

Contributor	Name	Signature	Date
▪ **Program Principle Coordinator:**	**Dr. Tarek Rageh** **Dr.Yasser El Serogy**		
▪ **Head of the Responsible Department (Program Academic Director):**	**Prof. Dr. Alaa Darweesh**		

Annex 1, Specifications for Courses / Modules

Annex 1: specifications for courses/ units

Course 1:Neuroanatomy and Emberyology & Genetics

- **Name of department: Neurology and Psychiatry**
- **Faculty of medicine**
- **Assiut University**
- **2021-2022/2022-2023**
- **Course code:NAP220A#**
- **It is divided into modules;**
- **Unit 1: Neuroanatomy and Emberyology.**
- **Unit 2: Genetics.**

Course 1: Unit 1: Neuroanatomy and Emberyology

1. Unit data

- **Course Title: Neuroanatomy and Emberyology & Genetics.**
- **Course code: NAP220A#.**
- **Speciality: Neurology and Psychiatry.**
- **Number of points: Didactic 2 CP (100%) practical 0CP(0%).total :2CP(100%)**
- **Department (s) delivering the course: Anatomy in conjunction with Neurology and Psychiatry department**
- **Coordinator (s):**
- **Course coordinator: Staff members of Neurology and Psychiatry Department in conjunction with Anatomy department as annually approved by both departments councils**
- **Date last reviewed: 4- 2022**
- **General requirements (prerequisites) if any :**
  - **None.**
- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Unit Aims

1. The candidate should acquire the **anatomical and embryological facts of nervous system which are appropriate to Neurological diseases and Psychiatric disorders in clinical reasoning, diagnosis and management of Neurological diseases and Psychiatric disorders.**

3. Unit intended learning outcomes (ILOs):

A-Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe Neuroanatomy and emberyological details of Nervous system which are appropriate for clinical reasoning, diagnosis and management of Neurological diseases and Psychiatric disorders including the followings: **1. Neuroanatomy of the following** **A-** Gross morphology of brain and spinal cord - Anatomy of diencephalon - Anatomy of cerebellum - Anatomy of brainstem - Anatomy of cerebrum -Tractology: Ascending and descending tracts - Anatomy of cranial nerves - Anatomy of spinal nerves - Basic anatomy of the neuron and spinal reflexes -Anatomy of autonomic nervous system. -Anatomy of limbic system. - Blood supply of brain and spinal cord - Meninges of brain and spinal cord. - Cerebrospinal fluid.	Didactic (lectures, seminars, tutorial)	Written and oral examination Log book

2. Embryology Principles of the following : - General embryology e.g. Ovulation, fertilization, implantation….etc.. - Detailed Development of Nervous system, - Principles Teratogenicity of CNS and neural tube defect		
B. Illustrate the principles of applied surface anatomy of the following: - nerves pathway, - Cerebral Blood vessels, - Cortical areas. - Muscles action. - Lymph nodes.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the neuroanatomical and neuroemberyological facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to **Neurology and psychiatry.**	Didactic (lectures, seminars, tutorial)	Written and oral examination Log book

C-Practical skills =0

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	Seminars tutorial	Oral Exam Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B.	Didactic (lectures, seminars, tutorial)	Oral Exam Logbook Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Didactic (lectures, seminars, tutorial)	Oral Exam Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	Didactic (lectures, seminars, tutorial)	360o global rating

4. Unit contents (topic s/modules/rotation
Unit Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Gross morphology of brain and spinal cord	**A**	**A**	**-**	**A-E**
Anatomy of diencephalon	**A**	**A**	**-**	**A-E**
Anatomy of cerebellum	**A**	**A**	**-**	**A-E**
Anatomy of brainstem	**A**	**A**	**-**	**A-E**
Anatomy of cerebrum	**A**	**A**	**-**	**A-E**
Tractology	**A**	**A**	**-**	**A-E**
Anatomy of cranial nerves	**A**	**A**	**-**	**A-E**
Anatomy of spinal nerves	**A**	**A**	**-**	**A-E**
Basic anatomy of the neuron and spinal reflexes	**A**	**A**	**-**	**A-E**
Anatomy of autonomic nervous system	**A**	**A**	**-**	**A-E**
Anatomy of limbic system	**A**	**A**	**-**	**A-E**
Blood supply of brain and spinal cord	**A**	**A**	**-**	**A-E**
Meninges of brain and spinal cord	**A**	**A**	**-**	**A-E**
Cerebrospinal fluid	**A**	**A**	**-**	**A-E**
Principles of general embryology .	**A**	**A**	**-**	**A-E**
Development of Nervous system	**A**	**A**	**-**	**A-E**
Teratogenicity of CNS and neural tube defect	**A**	**A**	**-**	**A-E**
Applied surface anatomy of nerves course, Cerebral Blood vessels, Cortical areas.	**B**	**A**	**-**	**D**

5. Methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial).
2. Observation and supervision.
3. Written & oral communication

6. Methods of teaching/learning: for students of limited abilities:

1. Extra Didactic (lectures, seminars, tutorial) Observation and supervision.
2. Written & oral communication according to their needs.

7- Assessment methods:

i. Assessment tools:

a. Written and oral examination (including assessment of practical skills)
b. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 100 marks(50 for written+ 50 for oral).

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books:

- Departmental notes or handout.

-Lange Clinical Neurology and Neuroanatomy: A Localization-Based Approach,Aaron Berkowitz - Lange McGraw-Hill Education - 6th edition Medical (2016).www.amazon.com › Lange-Clinical-Neurology-Neuroanatomy-Localization.www.amazon.com ›

-Neurology secrets.Joseph Kass, Eli Mizrahi,elsevier, 6th edition ,2016 ,www.elsevier.com › Health › Health › Books › Neurology Secrets

-Localization in Clinical Neurology 6th (sixth) Edition by Brazis MD, Paul W., Masdeu MD PhD, Joseph C., Biller MD FA published by Lippincott Williams.

iii. Recommended books;

-Localization in Clinical Neurology 6th (sixth) Edition by Brazis MD, Paul W., Masdeu MD PhD, Joseph C., Biller MD FA published by Lippincott Williams.

iv. Periodcal website.

www.pubmed.com.
www. Science direct.com
www.google.com.

v.Others: none.

Course 1 Unit (Module) 2 Genetics

I. Module data

- **Unit Title: Genetics**
- **Course code: NAP220A#**
- **Speciality is *Neurology and Psychiatry***
- **Number of Credit points(CP): total: 0.5CP, didactic 0.5 CP(100%), 0 practical .**
- **Department (s) delivering the course: *Neurology and Psychiatry* Department**
- **Coordinator (s): Staff members of *Neurology and Psychiatry* Department as annually approved by both departments councils**
- **Date last reviewed: 4-2022**
- **Requirements (prerequisites) none.**

2. Unit Aims

2. The candidate should acquire the genetic **facts of nervous system which are appropriate to Neurological diseases and Psychiatric disorders in clinical reasoning, diagnosis and management of Neurological diseases and Psychiatric disorders.**

3. Unit intended learning outcomes (ILOs):

A-Knowledge and understanding

	Methods of teaching/ learning	***Methods of Evaluation***
A. Describe genetics details of Nervous system which are appropriate for clinical reasoning, diagnosis and management of Neurological diseases and Psychiatric disorders including the followings: *Basic of cell structures and Molecular genetics: Nucleus,Mitochondria…etc. Nucleic acids (DNA& RNA). * Patterns of inheritance: - Autosomal dominant inheritance. - Autosomal recessive inheritance. - X Linked recessive inheritance. - X Linked dominant inheritance. - Multifactorial inheritance. * Chromosomes and Genes. * Mitochondria and genes. * DNA Analysis. * Gene and Mapping. *Mechanisms of Mutations. *Detections of Mutations. *Ethical aspects. *Neurogenetic information of the following neurological	Didactic (lectures, seminars, tutorial)	Written and oral examination Log book

disorders: • Muscle disorders. • Peripheral neuropathy. • Mitochondrial disorders		
B. Illustrate the principles of the following: *Ethical aspects. *Neurogenetic information of the following neurological disorders: • Muscle disorders. • Peripheral neuropathy. • Mitochondrial disorders		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the genetic facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to **Neurology and psychiatry.**	Didactic (lectures, seminars, tutorial)	Written and oral examination Log book

C-Practical skills =0

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B.	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	-Observation -Senior staff experience	Oral Exam Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	Observation -Senior staff experience	360o global rating

4. Unit contents (topic s/modules/rotation
Unit Matrix

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skills**	**General Skills**
Basic of cell structures and Molecular genetics: Nucleus,Mitochondria…etc. Nucleic acids (DNA& RNA	**A**	**A**	**-**	**A-D**
* Patterns of inheritance: - Autosomal dominant inheritance. - Autosomal recessive inheritance. - X Linked recessive inheritance. - X Linked dominant inheritance. - Multifactorial inheritance.	**A**	**A**	**-**	**A-D**
Chromosomes and Genes	**A**	**A**	**-**	**A-D**
Mitochondria and genes	**A**	**A**	**-**	**A-D**
DNA Analysis.	**A**	**A**	**-**	**A-D**
Gene and Mapping. Mechanisms of Mutations.	**A**	**A**	**-**	**A-D**
*Detections of Mutations.	**A**	**A**	**-**	**A-D**
Ethical aspects.	**A,B**	**A**	**-**	**A-D**
*Neurogenetic information of the following neurological disorders: • Muscle disorders. • Peripheral neuropathy. Mitochondrial disorders	**A,B**	**A**	**-**	**A-D**

5. Methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial).
2. Observation and supervision.
3. Written & oral communication

6. Methods of teaching/learning: for students of limited abilities:

1. Extra Didactic (lectures, seminars, tutorial) Observation and supervision.
2. Written & oral communication according to their needs.

7- Assessment methods:

i. Assessment tools:

c. Written and oral examination (including assessment of practical skills)

d. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 25 marks(12 for written+ 13 for oral).

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies.

ii. Essential books:

- Departmental notes or handout.

iii. Recommended books:

Merritt's Neurology,Elan D. Louis, Stephan A. Mayer, James M. Noble -14th edition -LWW. Wolters Kluwer (2021).

iv. Periodcal website.

www.pubmed.com.

www. Science direct.com

www.google.com.

v.Others: none.

9. Signatures

Course Coordinator	
Unit 1 Coordinator: ……	**Head of the Department:** ……
Date:	**Date:**
Unit 2 Coordinator: ……	**Head of the Department:** ……
Date: …	**Date:**

Course 2: Neurophysiology & Biochemistry.

- **Course Title: Neurophysiology & Biochemistery**
- **Course code: NAP220B#**

It is divided into two modules(units):

- Module 1 Neurophysiology.

- Module 2 Biochemistery .

- **Course Title: Neurophysiology & Biochemistery**
- **Course code: NAP220B#**

It is divided into two modules(units):

- Module 1 Neurophysiology.

- Module 2 Biochemistery .

- **Number of credit points: 2credit point, didactic 2credit point (100%) and 0 practical.**
- **Neurology and Psychiatry department in conjunction with physiology and Biochemistry departments.**

Course 2 :(Module 1) (Neurophysiology)

I. Module data

- **Module Title: Neurophysiology**
- Module code: **[NAP220B#]**
- **Speciality is Neurology and Psychiatry.**
- **Number of credit points: 1.5 credit point, didactic 1.5 credit point (100%) and 0 practical .**

- **Department (s) delivering the course: Physiology in conjunction with Neurology and Psychiatry department.**
- **Coordinator (s): Staff members of Neurology and Psychiatry Department in conjunction with Physiology Department as annually approved by both departments' councils.**
- **Date last reviewed: 4-2022**
- **Requirements (prerequisites) if any :**
- **None.**

2- Module Aims

1. The candidates acquire the neurophysiologic facts which are appropriate to neurological diseases and Psychiatric disorders for clinical reasoning, diagnosis and management.

3. Intended learning outcomes (ILOs):

A- Knowledge and understanding

A. Outline the Physiologic Principles of the following: 1. -Organization of the Nervous System I.e. A-types of neurons and nerve fibers in the body,the structure of neurons and nerves,different types, structure, and function of neuroglia B -Basic Functions of Synapses(I.e. types and synaptic contacts,synaptic properties,neuroplasticity, functions of reflex arc and components and mechanism of actions of chemical and electrical	-Lectures Didactics Tutorial;	-Written and -oral examination - Log book

synapse and synaptic transmission outlines), and C-Neurotransmitters; main classification, concerning receptors and physiologic function of each. 2. Outlines of Sensory Receptors, Neuronal Circuits for Processing Information, 3. Somatic Sensations: I. General Organization, the Tactile and Position Senses, 4. Somatic Sensations: II. Pain, Headache, and Thermal Sensations, 5. Motor Functions of the Spinal Cord; the Cord Reflexes, 6. Cortical and Brain Stem Control of Motor Function, 7. Contributions of the Cerebellum and Basal Ganglia to Overall Motor Control, 8. Cerebral Cortex, Intellectual Functions of the Brain, Learning, and Memory, 9. Behavioral and Motivational Mechanisms of the Brain in breif??????— The Limbic System and the Hypothalamus. 10. States of Brain Activity and waves—Sleep& Epilepsy. 11. The Autonomic Nervous System and the Adrenal Medulla,&pituitary. 12. Cerebral Blood Flow(mechanism of regulation and auto regulation of cerebral blood flow,the effect of brain activity on cerebral blood flow and physiologic requirements of normal cerebral blood flow and factors affecting brain eodema),.		

13. Cerebrospinal Fluid CSF formation and drainage,functions of CSF,the blood brain barrier),factors influencing the intracranial pressure,mechanisms of brain edema.		
B. Describe the Physiologic details of the following: - Autonomic nervous system - Nerve and muscle including the following: (Mechanism of Skeletal muscle contraction Types of nerve fib res and neurons - synaptic transmission and properties- stretch reflex - muscle fatigue and Tetanus- types of nerve conduction) * Blood pressure and crebral blood flow * CSF * Blood brain barrier (BBB) *Intracranial pressure *Cerebral circulation. - Physiology of pain mechanism and inhibition and pain theory. - Physiology of cognition and memory. - Physiology of limbic system		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of neuroPhysiology with clinical reasoning, diagnosis and management of common diseases related to Neurology and Psychiatry.	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Neurology and Psychiatry		

C-Practical skills

Practical: 0 CP

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform data management including data entry and analysis.	-Observation and supervision -Written and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	-Observation and supervision -Written and oral communication	Log book
C. Write a report in common condition mentioned in A.A		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Observation -Senior staff experience	Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
E. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	Logbook

4- Module (unit) contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
CNS	**B**	**A**	**-**	**A-E**
Autonomic nervous system	**B**	**A**	**-**	**A-E**
Organization of the Nervous System I.e. types of neurons and nerve fibers in the body,the structure of neurons and nerves,different types, structure, and function of neuroglia B -Basic Functions of Synapses(I.e. types and synaptic contacts,synaptic properties,neuroplasticity, functions of reflex arc and components and mechanism	**B**	**A**	**-**	**A-E**

of actions of chemical and electrical synapse and synaptic transmission outlines), and C-Neurotransmitters; main classification, concerning receptors and physiologic function of each. Outlines of Sensory Receptors, Neuronal Circuits for Processing Information, Somatic Sensations: I. General Organization, the Tactile and Position Senses, Somatic Sensations: II. Pain, Headache, and Thermal Sensations, Motor Functions of the Spinal Cord; the Cord Reflexes, Cortical and Brain Stem Control of Motor Function, Contributions of the Cerebellum and Basal Ganglia to Overall Motor Control, Cerebral Cortex, Intellectual Functions of the Brain,				

Learning, and Memory, Behavioral and Motivational Mechanisms of the Brain in breif??????— The Limbic System and the Hypothalamus. States of Brain Activity and waves—Sleep& Epilepsy. The Autonomic Nervous System and the Adrenal Medulla,&pituitary. Cerebral Blood Flow(mechanism of regulation and auto regulation of cerebral blood flow,the effect of brain activity on cerebral blood flow and physiologic requirements of normal cerebral blood flow and factors affecting brain eodema),, Cerebrospinal Fluid CSF formation and drainage,functions of CSF,the blood brain barrier),factors influencing the intracranial pressure,mechanisms of brain edema.				

5. Methods of teaching/learning:

- Didactic (lectures, seminars, tutorial)
- Observation
- Written & oral communication
- Senior staff experience

6. Methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs.

7- Assessment methods:

i. Assessment tools:

1- Written and oral examination

2- Log book

ii. Time schedule: At the end of the first part

iii. Marks: 75marks= (37,5 for written+37,5 for oral) .

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Integrated nervous system.The Nervous System: Basic science and clinical conditions:Adina Michael-Titus,Peter Shortl and,Patricia Revest,Edinburgh London,London New York Oxford Philadelphia ,ST Louis Sydney Toronto, 2010,second edition.
- Neuroscience Secrets: 1st Edition by Margaret T. Wong-Riley PhD (Author),Hanley & Belfus, 2000.
- Guyton AC, Hall JE: Textbook of Medical Physiology, 14th ed. Saunders, 2021.
- Erik Roberson, David G. Standaert, Franklin Amthor, W. Anne Burton Theibert - Essentials of Modern Neuroscience (LANGE)-McGraw-Hill Professional (2020)

iii. Recommended books

- Gillian Pocock, Christopher D. Richards: Human Physiology the Basis of Medicine. Oxfordcore texts,

2010-2013.

- Neuroscience, Fifth Edition by Dale Purves, George J. Augustine, David Fitzpatrick, William 5th (fifth) Edition [Hardcover(2011)] Textbook Binding.
- Principles of Neural Science, Sixth Edition 6th Edition by Eric Kandel (Author), John D. Koester (Author), Sarah H. Mack (Author), Steven Siegelbaum.

iv. Periodicals, Web sites, … etc

- American journal of physiology.
- Journal of applied physiology.

v. others

None

Course 2: (Module2) (Biochemistry)

I. Module data

- **Module Title: Biochemistry**
- **Course** code: **[NAP220B#]**
- **Speciality is Neurology and Psychiatry.**
- **Number of credit points: 0.5 credit point, didactic 0.5 credit point (100%) and 0 practical .**
- **Department (s) delivering the course: Biochemistery in conjunction with Neurology and Psychiatry department.**
- **Coordinator (s): Staff members of Biochemistry Department in conjunction with Neurology and Psychiatry Department as annually approved by both departments councils.**
- **Date last reviewed: 4-2022**
- **Requirements (prerequisites) if any :**
- **None.**

2- Module Aims

1. The candidates acquire the facts of biochemistry which are appropriate to neurological diseases and Psychiatric disorders for clinical reasoning, diagnosis and management.

3. Intended Learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Illustrate *Biochemistry principles related to neuropsychiatric disorders of the following:* -Diabetes mellitus - Lipid metabolism - Phospholipid metabolism - Glycolipid metabolism - Dyslipoproteinemias - Protein metabolism - Amino acids (tryptophan, tyrosine, histidine). - Metabolic inborn errors(porphyria, common acidurias, Leisch Nyhan disease). -Principles of Storage diseases of the nervous system. - Vitamins& minerals related to neuropsychiatric disorders - Antioxidants related to neuropsychiatric disorders	-Didactic (lectures, seminars, tutorial	-Written and oral examination - Log book
B. Describe the biochemistery principle of the following: - Cerebrospinal fluid - Biochemistry of receptors - Molecular structures and functions - Mechanisms of transmembrane signaling - Biochemistry of neurotransmitters - Catecholamines - Acetylcholine Gamma aminobutyric acid (GABA) - Histamine, seretonine and melatonin - Related peptides for neurotransmission - Cellular receptors. - Storage diseases of the nervous system.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of *Biochemistry* with clinical reasoning, diagnosis and management of common diseases related to Neuropsychiatric disorders.	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

C- Practical skills

Practical: 0 CP

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform data management including data entry and analysis.	-Observation and supervision -Written and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	-Observation and supervision -Written and oral communication	Log book
C. Write a report in common condition mentioned in A.A		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation -Senior staff experience	Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
E. Work effectively in relevant health care delivery settings and systems.	Observation -Senior staff experience	Logbook

Module contents (topic s/modules/rotation) module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Diabetes mellitus	**A**	**A**	**-**	**A-E**
Lipid metabolism	**A**	**A**	**-**	**A-D**
Phospholipid metabolism	**A**	**A**	**-**	**A-D**
Glycolipid metabolism	**A**	**A**	**-**	**A-D**
Dyslipoproteinemias	**A**	**A**	**-**	**A-D**
Amino acids	**A**	**A**	**-**	**A-D**
Metabolic inborn errors	**A**	**A**	**-**	**A-D**
Cerebrospinal fluid	**B**	**A**	**-**	**A-D**
Biochemistry of receptors	**A**	**A**	**-**	**A-D**
Molecular structures and functions	**B**	**A**	**-**	**A-D**
Mechanisms of transmembrane signaling	**B**	**A**	**-**	**A-D**
Biochemistry of neurotransmitters: - Catecholamines - Acetylcholine Gamma amino butyrins acid (GABA) - Histamine, seretonine and melatonin - Related peptides for neurotransmitters	**B**	**A**	**-**	**A-D**
Cellular receptors.	**B**	**A**	**-**	**A-D**
Storage diseases of the nervous system. - Vitamins& minerals related to neuropsychiatric disorders.	**B** **A**	**A** **A**	**-** **-**	**A-D** **A-D**

- Antioxidants related to neuropsychiatric disorders.	**A**	**A**	**-**	**A-D**

5. Methods of teaching/learning

1. Didactic (lectures, seminars, tutorial)
2. Observation
3. Written & oral communication
4. Senior staff experience

6. Methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs

7. Assessment methods

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 25=12.5 for written+12.5 for oral

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Harper's Illustrated Biochemistry, 28th Edition
- Merritt's Neurology,Elan D. Louis, Stephan A. Mayer, James M. Noble -14th edition -LWW. Wolters Kluwer (2021).
- Erik Roberson, David G. Standaert, Franklin Amthor, W. Anne Burton Theibert - Essentials of Modern Neuroscience (LANGE)-McGraw-Hill Professional (2020)

iii. Recommended books

- Lippincott's Illustrated Reviews: Biochemistry, by Richard A. Harvey , Denise R. Ferrier, Lippincott Williams & Wilkins fifth Edition.

iv. Periodicals, Web sites, … etc

- Biochemistry and molecular biology education journal.
- Physiology and Biochemistry journal.
- Journals of Neurochemistery.

v. others : None

9. Signatures

Course Coordinator	
Unit 1 Coordinator: **….**	**Head of the Department:** **……**
Date: **……**	**Date:** **……**
Unit 2 Coordinator: **…**	**Head of the Department:** **……**
Date: **……**	**Date:** **……**

Course 3 : Neuropathology&Psychopathology

- **Course Title: Neuropathology &Psychopathology**
- **Course code : NAP220C#.**

It is divided into two modules:

- **Module 1 Neuropathology**
- **Module 2 Psychopathology**

Course 3: module 1; Neuropathology

1. Module data

- **Module title : Neuropathology**
- **Course code:[NAP220C#].**
- **Speciality : Neurology and Psychiatry.**
- **Number of credit points: 1 credit point, didactic 1 credit point (100%) and 0 practical.**
- **Department (s) delivering the course: Pathology Department in conjunction with Neurology and Psychiatry department**
- **Coordinator (s): Staff members of Neurology and Psychiatry d Department in conjunction with Pathology department as annually approved by both departments councils.**
- **Principle coordinator: Professor Dr. Eman Khedr.**
- **Assisstant coordinator: prof.Dr. Mohammad Abdelrhaman.**
- **Date last reviewed: 4-2022**
- **Requirements (prerequisites) if any: None**
- **Fulfilling logbook requirements.**

2-Module (unit) Aim

1. The candidate should acquire the neuropathological facts which are appropriate to Neurological diseases and Psychiatric disorders in clinical reasoning, diagnosis and management of Neurological diseases and Psychiatric disorders.

3. Intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe Neuropathology facts of Nervous system which are appropriate for clinical reasoning, diagnosis and management of Neurological diseases and Psychiatric disorders including the following: - General Pathology and Pott's disease. -Ischemic infarction -Hemorragic stroke - Aneurysm. - Dementia. -Neuropathies. -↑ICT and brain edema. -Tumors of CNS. -Atherosclerosis. -Infection of CNS. -Muscle diseases.	Didactic (lectures, seminars, tutorial)	Written and oral examination Log book
B- Illustrate the principles of general pathology including the following: - Cell degeneration, -Cell death, -Inflammation,granuloma, TB . - Cerebrospinal fluid.		

B. Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the neuropathological facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to **Neurology and psychiatry.**	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

C-Practical skills

Practical: 0 credit point

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform data management including data entry and analysis.	-Observation and supervision -Written and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	-Observation and supervision -Written and oral communication	Log book
C. Write a report in condition mentioned in A.A		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation -Senior staff experience	Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
E. Work effectively in relevant health care delivery settings and systems.	Observation -Senior staff experience	Logbook

4. Module contents (topic s/modules/rotation Module Matrix

Time Schedule: First part.

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
General Pathology of				
cell degeneration and death	**B**	**A**	**-**	**A-D**
Inflammation	**B**	**A**	**-**	**A-D**
Tuberculosis- Pott's disease.	**A,B**	**A**	**-**	**A-D**
Disturbance of growth	**B**	**A**		**A-D**
Pathology of tumors	**B**	**A**		**A-D**
Diagnostic cytology	**B**	**A**		**A-D**
Neuropathology				
Ischemic infarction	**A**	**A**	**-**	**A-E**
Hemorrhagic stroke	**A**	**A**	**-**	**A-E**
- Aneurysm.	**A**	**A**	**-**	**A-E**
- Dementia.	**A**	**A**	**-**	**A-E**
Neuropathies.	**A**	**A**	**-**	**A-E**
-Increased ICT and brain edema.	**A**	**A**	**-**	**A-E**
-Tumors of CNS.	**A**	**A**	**-**	**A-E**
-Atherosclerosis.	**A**	**A**	**-**	**A-E**
-Infection of CNS.	**A**	**A**	**-**	**A-E**
-Muscle diseases.	**A**	**A**	**-**	**A-E**

5. Methods of teaching/learning

1. Didactic (lectures, seminars, tutorial)
2. Laboratory work.

6. Methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra Laboratory work to their needs

7. assessment methods:

i. Assessment tools: Written and oral examination (including assessment of practical skills)
-Log book

ii. Time schedule: At the end of first part

iii. Marks: 50 marks = **(25 marks for written+ 25 marks for oral)**

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Merritt's Neurology,Elan D. Louis, Stephan A. Mayer, James M. Noble -14th edition -LWW. Wolters Kluwer (2021).
- Robbins Basic Pathology: with STUDENT CONSULT Online Access (Robbins Pathology) 9th Edition by Vinay Kumar MBBS MD FRCPath (Editor), Abul K. Abbas MBBS (Editor), Jon C. Aster MD PhD (Editor). https://www.amazon.com/Robbins-Basic-Pathology-STUDENT-CONSULT/dp/1437717810?asin=1437717810&revisionId=&format=4&depth=1.
- Erik Roberson, David G. Standaert, Franklin Amthor, W. Anne Burton Theibert - Essentials of Modern Neuroscience (LANGE)-McGraw-Hill Professional (2020)
- Pasko Rakic, John Rubenstein, Bin Chen, Kenneth Y. Kwan - Synapse Development and Maturation_ Comprehensive Developmental Neuroscience-Academic Press (2020)

iii. Recommended books

- Rosai and Ackerman's surgical pathology, 9th edition author: Juan Rosai Mosby, Edinburgh, 2004. Panna S. Mahadevia M.D.

- Sternberg's Diagnostic surgical Pathology 4th edition, Lippincott Williams and Wilkins.
- Comprehensive Textbook of Pathology for Nursing: Pathology, Clinical Pathology, Genetics}. Author, A. K Mandal. Publisher, Avichal Publishing, 2016.

iv. Periodicals, Web sites, … etc

- Human pathology
- Histopathology

v. others

- None

Course3; Module 2 :Psychopathology

1. Module Data

- **Module title : Psychopathology**
- **Code [NAP220C#]**
- **Speciality: Neurology and Psychiatry.**
- **Number of Credit points1 credit point, didactic 1 credit point (100%) and practical 0.**
- **Department (s) delivering the course: Neurology and Psychiatry department**
- **Coordinator (s):**
- **Principle coordinator:**
  Prof DR. Wageih Abdel Nasser,
- **Assistant coordinator:**
  Prof Dr. Alaa Darweish.
- **Date last reviewed: 4-2022**
- **Requirements (prerequisites) if any :**
- **Fulfilling logbook requirements.**

2- Module Aims

The candidate acquire psychopathology facts of which are appropriate to neuropsychiatric disorders for clinical reasoning, diagnosis and management.

3. Intended learning outcomes (ILOs)

A -Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the principles of Descriptive and dynamic psychopathology of different psychiatric disorders: - Schizophrenia - Mood disorders - Anxiety disorders - Eating disorders -Dissocialize disorders -Somatoform disorders - Sexual disorders**.**	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book
B-Illustrate the principles of psychopathology of other disorders.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

B-Intellectual outcomes

ILOs	**Methods of teaching/ learning**	**Methods of Evaluation**
A. Correlate the facts of Psychopathology assessment related to common neuropsychiatric problem in analytic thinking in practice.	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

C- Practical skills =0

D-General Skills
Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform data management including data entry and analysis.	-Observation and supervision -Written and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	-Observation and supervision -Written and oral communication	Log book
C. Write a report in common condition mentioned in A.A and A.B		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation -Senior staff experience	Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
E. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	Logbook

4. Module contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Descriptive and dynamic psychopathology of different psychiatric disorders:				
- Schizophrenia	**A**	**A**	**-**	**A-D**
- Mood disorders	**A**	**A**	**-**	**A-D**
Anxiety disorders	**A**	**A**	**-**	**A-D**
- Eating disorders	**A**	**A**	**-**	**A-D**
- Aggression	**A**	**A**	**-**	**A-D**
Dissocialize disorders	**A**	**A**	**-**	**A,C**
Somatoform disorders	**A**	**A**	**-**	**A-E**
Sexual disorders	**A**	**A**	**-**	**A-D**
Psychopathology of other disorders.	**B**	**A**	**-**	**A-D**

5. Methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. traiining work
3. Observation and supervision
4. Written & oral communication
5. Senior staff experience

6. Methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training work according to their needs

7. Assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Assessment of practical skills)
3. Log book.
4. Applied in clinical evaluation during Psychiatric interviews

ii. Time schedule: at the end of first part.

iii. Marks: 50 (25 written + 25oral & clinical applied)

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

-Kaplan & Sadock's Pocket Handbook of Clinical Psychiatry- Benjamin J. Sadock MD, Samoon Ahmad M.D., Virginia A. Sadock MD -LWW (2018)

-Oxoford handbook of Psychiatry David semple Roger Smyth, Jonathan Burns, Rajan Darjee, Andrew Mclntosh oxoford medical publication, 2nd edition 2009.OUP Oxford, 26 Mac 2009 - 977 halaman.

− Comprehensive Clinical Psychiatry,2014 :Steven L Dubovsky (University of Buffalo, USA) ; and; Amelia N Dubovsky

-Fish's Clinical Psychopathology: Signs and Symptoms in Psychiatry 4th Edition (2019) by Patricia Casey.

- Kaplan & Sadock's synopsis of Psychiatry, 12th edition. By Robert Boland , By (author) Marcia Verduin , Dr. Pedro Ruiz,Wolters Kluwer Health.

iii. Recommended books;

Comprehensive Textbook Of Psychiatry Hardcover English by Benjamin J. Sadock , Virginia A. Sadock , Dr. Pedro Ruiz,10th edition.

- **Periodicals for last 3-5 years, Web sites, … etc**

American Journal of Psychiatry

iv.Periodicals for last 3-5 years, Web sites, … etc

- American Journal of Psychiatry
- British journal of psychiatry.
- BMJ (Neurology, Neurosurgery and Psychiatry)
- Egyptian Journal of Neurology, Psychiatry and neurosurgery.
- Egyptian Journal of Psychiatry.
- Years book of Psychiatry and Neurology.
- Archives of general psychiatry.

v. Others: None.

9. Signatures

Course Coordinator	
Unit 1 Coordinator:	**Head of the Department:**
Date:	**Date:**
Unit 2 Coordinator:	**Head of the Department:**
Date:	**Date:**

Course 4 : (Pharmacology)

1. Course data

- **Course Title: Pharmacology**
- **Unit code: NAP206**
- **Speciality is Neurology and Psychiatry.**
- **Number of credit points: 1.5 credit point, Didactic 1.5 credit point (100%) and 0 practical.**
- **Department (s) delivering the unit: Pharmacology in conjunction with Neurology and Psychiatry.**
- **Coordinator (s): Staff members of Neurology and Psychiatry Department in conjunction with Pharmacology Department as annually approved by both departments councils**
- **Date last reviewed: 4-2022.**
- **Requirements (prerequisites) if any :**

  None
- **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Course aims

The student should acquire the professional knowledge and facts of pharmacology necessary for **Neurology and Psychiatry disorders.**

3. Course intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Illustrate Pharmacological principles of the following: • General pharmacology. • Antiepileptic drugs. • Psychotropic drugs. • Antipsychotic drugs. • Antidepressants. • Mood stabilizers. • -Anaxiolytic drugs • Antiplatelates. • Thrombolytic drugs. • Anticoagulants. • Antiparkinsonian drugs. • Anticholinergic drugs. • Anticholine esterase inhibitors. • Drug dependence& habituation & drug abuse. • -Addiction. • -Tranquilizers. • -Brain stimulants • Antibiotic, antimicrobial, antiviral. • -Hypoglycemic agents. • -Antihypertensive drugs. • anti arrhythmic drugs. • In tropics • Coronary dilators. • - Bronchodilators • Non steroidal anti-inflammatory drugs.	-Didactic (lectures, seminars, tutorial)	- Written and oral examination - Log book

• -Steroids. • Analgesic and pain killers. • Dehydrating measures. • Immunosuppressant drugs • - Chemotherapy and CNS side effect.		
B. Describe Pharmacological *details* of the following: • Antiepileptic drugs. • Psychotropic drugs. • Antipsychotic drugs. • Antidepressants. • Mood stabilizers. • -Anaxiolytic drugs • Antiplatelates. • Thrombolytic drugs. • Anticoagulants. • Antiparkinsonian drugs. • Anticholinergic drugs. • Anticholine esterase inhibitors. • Drug dependence& habituation & drug abuse. • -Addiction. • -Tranquilizers. • -Brain stimulants		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of pharmacology with clinical reasoning, diagnosis and management of common diseases related to Neurology and Psychiatry.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

C- Practical skills

Practical: 0 credit point

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating

4. Course contents (topic s/modules/rotation
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	**Intellectual** B	**Practical skills** C	**General Skills** D
• General pharmacology.	A	A	-	A-D
• Antiepileptic drugs.	A,B	A	-	A-D
Psychotropic drugs.	A,B	A	-	A-D
-Antipsychotic drugs.	A,B	A	-	A-D
-Antidepressants.	A,B	A	-	A-D
-Mood stabilizers.	A,B	A	-	A-D
• -Anaxiolytic drugs	A,B	A	-	A-D
• Antiplatelates.	A,B	A	-	A-D
• Thrombolytic drugs.	A,B	A	-	A-D
• Anticoagulants.	A,B	A	-	A-D
• Antiparkinsonian drugs.	A,B	A	-	A-D
• Anticholinergic drugs.	A,B	A	-	A-D
• Anticholine esterase inhibitors.	A,B	A	-	A-D
• Drug dependence& habituation & drug abuse. Addiction. • -Tranquilizers. • -Brain stimulants	A,B	A	-	A-D
• Antibiotic, antimicrobial, antiviral. • -Hypoglycemic agents. • -Antihypertensive drugs. • anti arrhythmic drugs. • In tropics	A	A	-	A-D

• Coronary dilators. • - Bronchodilators • Non steroidal anti-inflammatory drugs. • -Steroids. • Analgesic and pain killers. • Dehydrating measures. • Immunosuppressant drugs - Chemotherapy and CNS side effect				

5. Course methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Course methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Course assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 75(37 marks for written+ 38 Marks for oral).

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

-Merritt's Neurology,Elan D. Louis, Stephan A. Mayer, James M. Noble -14th edition -LWW. Wolters Kluwer (2021).

-Basic & Clinical Pharmacology, 15thEdition(2021), Bertram Katzung, Anthony Trevor, Susan Masters. Publisher: McGraw-Hill

iii. Recommended books

Godman Gilmans. The Pharmacological Basis of Therapeutics, Twelfth Edition. 12th ed.(2017).by: Laurence Brunton , Bruce A. Chabner , Bjorn Knollman-publisher McGraw-Hill Education - Europe.

iv. Periodicals, Web sites, … etc

- **Periodicals,**
  - British journal f pharmacology
  - Pharmacological review
- **Web sites:** http://mic.sgmjournals.org/

v. others : None

9. Signatures

Course Coordinator	
Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Course 5: Internal Medicine

I. Course data

- **Course Title: Internal Medicine.**
- **Course code: NAP218.**
- **Number of credit points (CP): total CP: 9 CP(100%), didactics 3(33.3%) CP, practical 6 (66.7%) CP.**
  - ❖ **Department (s) delivering the course: Department of Internal medicine in conjunction with** Department of Neurology and Psychiatry - Faculty of Medicine- Assiut University.
- **Coordinator (s): in conjunction with staff members of internal medicine department after approval of both council departments.**
- **-Course coordinator :**
- **Date last reviewed: 4-2022.**
- **Requirements (prerequisites) if any :**

  According to approved regulatory rules

2. Course aims

2.1-To make the candidates able to be familial with the diagnosis and management of common medical problems that may be encountered with field of Neurology and Psychiatry.
2.2- To make the candidates able to deal with medical emergencies safely and effectively as regard their investigation and management.

3. Intended learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the etiology, clinical picture, diagnosis and management of the following medical diseases(which are related to neuropsychiatric disorders) and clinical conditions: **Nephrology** -Acute and chronic renal impairment. -Dialysis and complications. - Drug clearance in kidney diseases and dosage. **Cardiology** - Rheumatic Heart and its complication. - Heart failure and shock. - Hypertension and it's complication. - Ischemic heart disease. - Myocardial infarction. - Arrhythmia. **Chest diseases** -TB and COPD and their neuropsychiatric complication. -Respiratory failure type I, II. -Oxygen therapy and drug induced asthma. -Status astmaticus. - Drugs contraindicated in chronic lung diseases. -COVID 19 and systemic manifestations **Endocrinal diseases**	-Didactic (lectures, seminars, tutorial) -Case presentation	- Written and oral examination - Log book

- DM and it's complication -Thyroid and parathyroid - Pituitary glands. - Obesity. **Metabolic disorders** - Electrolytes disturbance and management. - Hepatic impairment and management. - Gastric ulcer and guidelines of management. **Rheumatology** -Collagen diseases and neuropsychiatric manifestations and complications		
B. Outline the principles of Basics of general medicine which are related to AA		
C. State update and evidence based Knowledge of the following: -Hypertension - Diabetes mellitus - Electrolytes disturbance.		
D. Memorize the facts and principles of the relevant basic supportive sciences related to Internal Medicine.		
E. Mention the basic ethical and medicolegal principles relevant to Internal Medicine.		
F. Mention the basics of quality assurance to ensure good clinical care in Internal Medicine.		
G. Mention the ethical and scientific principles of medical research.		
H. State the impact of common health problems in the field of Internal Medicine on the society.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Internal Medicine**.**	-Clinical rounds Senior staff experience	-Logbook and Portfolios -Procedure and case presentation
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Internal Medicine.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the Internal Medicine.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-OSCE -log book & portfolio -Clinical exam in internal medicine

B. Order the following non invasive diagnostic procedures: -ESR, blood culture . - Echocardiography. - Blood picture - Blood chemistry. - Metabolic profile: i.e. serum electrolytes]. - Chest x rays. - Endocrinal profile. - Rheumatoid factor, ANF, LE cells. - Blood gases.	-Clinical round with senior staff Observation -Post graduate teaching	-Procedure presentation - Log book - Chick list
C. Interpret the following non invasive diagnostic procedures - ESR, blood culture . - Echocardiography. - Blood picture - Blood chemistry. - Metabolic profile: i.e. serum electrolytes]. - Chest x rays. - Endocrinal profile. - Rheumatoid factor, ANF, LE cells. - Blood gases.	Clinical round with senior staff	Procedure presentation - Log book - Chick list
D. Perform the following non invasive Diagnostic and therapeutic procedures. -Urine testing for protein –ECG. – Blood gases. - Investigations for diagnosis of COVID 19	Clinical round with senior staff -Perform under supervision of senior staff	Procedure presentation - Log book - Chick list
E. Prescribe proper treatment for conditions mentioned in A.A.	Clinical round with senior staff	- Log book - Chick list
F. Carry out patient management plans for common conditions related to Internal Medicine as in mentioned in A.A	Clinical round with senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Internal Medicine.		

H-Provide health care services aimed at preventing health problems related to Internal Medicine.		
I-Provide patient-focused care in common conditions related to Internal Medicine, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A.		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	Procedure/case presentation -Log book and Portfolios
B. Appraises evidence from scientific studies(journal club)	-Journal clubs - Discussions in seminars and clinical rounds	
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.	Clinical rounds Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Clinical round Seminars Lectures Case presentation	Global rating Procedure/case presentation Log book Portfolios Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in common problems related to Internal Medicine.	Clinical round Seminars	Clinical Exam
K. Write a report : ECG report.	Senior staff experience	Chick list
L. Council patients and families about: Conditions mentioned above in A.A.	Clinical round with senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Observation Senior staff experience Case taking	1. Objective structured clinical examination 2. Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care,		1. 360o global rating

confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		1. Objective structured clinical examination 2. 360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Observation Senior staff experience	1. 360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		1. Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		1. 360o global rating 2. Patient survey

4. Course contents (topic s/modules/rotation)
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Cardiovascular diseases.				
- Acute and chronic renal impairment. -Dialysis and complications.1h - Drug clearance in kidney diseases and dosage	**A,B,D-H**	**A-D**	**A-I**	**A-L**
Rheumatic Heart and its complication. - Heart failure and shock. - Hypertension and it's complication. - Ischemic heart disease. - Myocardial infarction. - Arrhythmia	**A-H**	**A-D**	**A-I**	**A-R**
Chest diseases TB and COPD and their neuropsychiatric complication. Respiratory failure type I, II. -Oxygen therapy and drug induced asthma. -Status astmaticus. - Drugs contraindicated in chronic lung diseases. -COVID 19 systemic manifestations	**A,C**	**A-D**	**A-I**	**A-R**
- **Endocrinal diseases** - DM and it's complication -Thyroid and parathyroid - Pituitary glands. - Obesity	**A-C**	**A-D**	**A-I**	**A-R**
- **Metabolic disorders** - Electrolytes disturbance and management. - Hepatic impairment and management.	**A-C**	**A-D**	**A-I**	**A-R**

- Gastric ulcer and guidelines of management				
Rheumatology -Collagen diseases and neuropsychiatric manifestations and complications	**A-H**	**A-E**	**A-I**	**A-R**

5. Course Methods of teaching/learning

1. Didactic ; Lectures
2. Clinical rounds
3. Seminars
4. Clinical rotations
5. Service teaching
6. Post graduate teaching
7. Perform under supervision of senior staff
8. Case presentation
9. Written & oral communication
10. Observation

6. Course Methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra Laboratory work according to their needs

7. Course assessment methods

i. Assessment tools:

1. Clinical examination
2. Written and oral examination
3. Chick list
4. log book & portfolio
5. Procedure/case presentation
6. Objective structured clinical examination
7. Check list evaluation of live or recorded performance
8. Patient survey
9. 360o global rating

ii. Time schedule: At the end of the first part

iii. Marks: 150 marks =60 mark for written+ 90marks for oral(30 marks) and clinical exam(60 marks).

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies.

ii-Essential books:

- Davidson's Principles and Practice of Medicine, 24th Edition(2022). Editors : Ian D Penman & Stuart H. Ralston & Mark W J Strachan & Richard Hobson. Elsevier.
- Hutchison's Clinical Methods: An Integrated Approach to Clinical Practice (Hutchinson's Clinical Methods) 24th Edition by Michael Glynn MA MD FRCP FHEA (Editor), William M Drake DM FRCP (Editor).Evolve.Elsevier.

iii. Recommended books

- Harrison's Principles of Internal Medicine, 21st(2021) Edition by Anthony Fauci, Eugene Braunwald, Dennis Kasper, and Stephen Hauser ,McGraw Hill Medical

iv. Periodicals, Web sites, … etc

- **Periodicals**
  - Internal medicine journal
  - Annals of Internal medicine journal
  - Journal of General Internal Medicine

- **Web sites:** www.pubmed.com

9. Signature

Course Coordinator: ……	**Head of the Department:** ……..
Date:	**Date:**

Course 6: General & Special Psychology

I. Course data

- **Course Title: General Psychology &special psychology and Psychometric assessment.**
- **Course** code: **[NAP220D]**
- **It is Divided into two modules:**

  - Module 1 General Psychology.

  - Module 2 Special Psychology and psychometric assessment.
- **Speciality is Neurology and Psychiatry.**
- **Number of Credit points : Total 7CP(100%); didactics 3 CP(42.9%), practical 4CP (57.1%)**
- **Department (s) delivering the course: Neurology and Psychiatry department.**
- **It is divided into two modules:**

- Module 1:General Psychology

-Module2: Special Psychology.

Course 3; Module 1: General Psychology

I. Module data

- **Module Title: General Psychology.**
- **Course** code: **[NAP220D]**
- **Speciality is Neurology and Psychiatry.**
- **Number of Credit points :Total 1CP(100%); didactics 1CP(100%), practical 0CP (0%).**
- **Department (s) delivering the course: Neurology and Psychiatry Department.**
- **Coordinator (s):**
- **Priniciple coordinator: Prof Dr. Wageih Abd El Nasser.**
- **Assisstant coordinator DR Alaa Darweish.**
- **Date last reviewed: 4-2022**
- **Requirements (prerequisites) if any :**

  None.

2. Module Aims

2/1-The candidates should acquire the general Psychological facts of which are appropriate to neuropsychiatric disorders for clinical reasoning, diagnosis and management.

3. Intended learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Outline the Principles of General Psychology including the following: - Fields of Psychology. -Developmental psychology. - Social Psychology.	Didactics Lectures Tutorial seminars	-Written and oral examination - Log book.
B-Describe *General* Psychology Principles related to neuropsychiatric disorders including the following: -Perception - Attention - Memory Intelligence - Thinking Developmental psychology - Social psychology -Personality -Sleep and dream.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of general Psychology that appropriate to neuropsychiatry for clinical reasoning, diagnosis and management of common diseases related to Neurology and Psychiatry.	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

C- Practical skills

= 0 CP

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform data management including data entry and analysis.	-Observation and supervision -Written and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	-Observation and supervision -Written and oral communication	Log book
C. Write a report in common condition mentioned in A.A and A.B		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation -Senior staff experience	Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
E. Work effectively in relevant health care delivery settings and systems.	Observation -Senior staff experience	Logbook

4. Module contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Fields of Psychology.	A,	A	-	A-E
Developmental psychology	A	A	-	A-D
Social psychology	A	A	-	A-D
Perception.	B	A	-	A-D
Attention.	B	A	-	A-D
Memory.	B	A	-	A-D
Intelligence.	B	A	-	A-D
Thinking.	B	A	-	A-D
Personality.	B	A	-	A-D
Sleep and dream.	B	A		A-D

5. Methods of teaching/learning

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs

7 .Assessment methods

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks= 150mark for 2 units.

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

Kaplan & Sodack text book of Psychiatry.

iii. Recommended books

Comprehensive textbook of Psychiatry.

iv. Periodicals, Web sites, …

brain and development..

American journal of psychiatry,…etc

v. Others : None

Course 6 (module 2) Special Psychology and Psychometric assessment

I. Module data

- **Module Title: Special Psychology and Psychometric assessment.**
- **Course** code: **[NAP220D]**
- **Speciality is Neurology and Psychiatry.**
- **Number of Credit points :Total 6CP(100%); didactics 2CP(33.3%), practical 4CP (66.7%).**
- **Department (s) delivering the course: Neurology and Psychiatry department.**
- **Coordinator (s):**
- **Priniciple coordinator: Prof Dr. Wageih M Abdel Nasser**
- **Assisstant coordinator: Dr. Kaled A ElBeih.**
- **Date last reviewed: 17-9-2017.**
- **Requirements (prerequisites) if any :**

  None.

2- Module Aims

1. The candidates acquire special Psychology facts of which are appropriate to neuropsychiatric disorders for clinical reasoning, diagnosis and management.

3. Intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A-Describe Details of Principles of special Psychology related to neuropsychiatric disorders of the following: - *Contemporary schools* ▪ Psychoanalysis ▪ Behaviorism ▪ Assaciationism ▪ Psychophysiology . ▪ Transactional psychology *-Psychometry* ● Intelligence ● Personality ● Organic brain disorders including Dementia.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

A- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlate the facts of special Psychology principles and Psychometric assessment related to common neuropsychiatric problem in analytic thinking in practice.	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

B-Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Master the basic skills in the special psychology of neuropsychiatric disorders. .	Training work. Discussion of reports.	Assessment of practical skills -Logbook
B- Order of psychometric test for the following aspects: - Intelligence - Personality - Organic brain disorders including dementia.		
C. interpret ate report of psychometric test for the following aspects: - Intelligence - Personality - Organic brain disorders including dementia.		
D- Perform psychometric test for the following aspects: - Intelligence - Personality - Organic brain disorders including dementia. - psychoanalysis of different Psychiatric disorders and behavioral response of the Psychiatric patient.		
E-Use information technology to support decisions related to special psychology of neuropsychiatric disorders		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform data management including data entry and analysis.	-Observation and supervision -Written and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	-Observation and supervision -Written and oral communication	Log book
C. Write a report in common condition mentioned in A.A and A.B		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation -Senior staff experience	Logbook

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
E. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	Logbook

4. Module contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Contemporary schools				
Psychoanalysis. - Behaviorism.	**A**	**A**	**A-D**	**A-D**
Assaciationism.	**A**	**A**	**A-D**	**A-D**
Psychophysiology.	**A**	**A**	**A-D**	**A-D**
Transactional psychology.	**A**	**A**	**A-D**	**A-D**
- Agression	**A**	**A**	**A-D**	**A-D**
Psychometry Assessment				
Intelligence	**B**	**A**	**A-D**	**A-E**
Personality	**B**	**A**	**A-D**	**A-E**
Organic brain disorders including Dementia.	**B**	**A**	**A-E**	**A-E**

5. Methods of teaching/learning

1. Didactic (lectures, seminars, tutorial)
2. training work
3. Observation and supervision
4. Written & oral communication
5. Senior staff experience

6. Methods of teaching/learning: for students with poor achievements

-Extra Didactic (lectures, seminars, tutorial) according to their needs

-Extra training work according to their needs

7. Assessment methods

i. Assessment tools:

1. Written and oral examination
2. Assessment of practical skills)
3. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 150 Marks(60 written+30 oral+60 applied)

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

-Oxoford handbook of Psychiatry David semple Roger Smyth, Jonathan Burns, Rajan Darjee, Andrew Mclntosh oxoford medical publication,1st edition 2005.

-Kaplan &Sodack textbook of Psychiatry.

iii. Recommended books

Comprehensive text book of Psychiatry.

iv.Periodicals for last 3-5 years, Web sites, … etc

• American Journal of Psychiatry

•British journal of psychiatry.

• BMJ (Neurology, Neurosurgery and Psychiatry)

• Egyptian Journal of Neurology, Psychiatry and neurosurgery.

• Egyptian Journal of Psychiatry.

- Years book of Psychiatry and Neurology.
- Archives of general psychiatry.

v. Others: None.

9. Signatures

Course Coordinator	
Unit 1 Coordinator: ……	**Head of the Department: ……**
Date: 19-2-2017	**Date: 19-2-2017**
Unit 2 Coordinator: ……	**Head of the Department: ……**
Date: …19-2-2017	**Date: 19-2-2017**

Second part
Speciality courses

Course 7: Neurology and Psychiatry.

Name of department: of Neurology and Psychiatry department.
Faculty of medicine
Assiut University
2021-2022/2022-2023.

- **Course Title: Neurology and Psychiatry course**
- **Course code: NAP220E.**
- **Speciality : Neurology and Psychiatry**
- **Number of credit points: 134, didactic 24 credit points (17.9%), practical 110 credit points (82.1%).**
- **Department (s) delivering the course: Neurology and Psychiatry department, Faculty of Medicine, Assiut University.**
- **Coordinator (s):**

Principle coordinator: Prof.Dr Tarek Rageh,
Prof.Dr. Yasser Elserogy
Assistant coordinator: Dr.Hossam Kalifa, Noha Abo Elfetoh

- Date last reviewed: **4-2022.**
- **Requirements (prerequisites) if any: Requirements from the students to achieve course ILOs are clarified in the joining log book.**

It is divided into 7 modules:

- **Module 1- Neurological disorders.**
- **Module 2- Psychiatric disorders.**
- **Module 3- Neurology and Psychiatric emergencies.**
- **Module 4- Neuroelectrophysiology and Neuroimaging.**
- **Module 5- Interventional Neurology and Psychiatry.**
- **Module 6- Addiction.**
- **Module 7- Psychometry lab**

❖ Module Coordinator (s):

Unit	Principle Coordinator	Assistant coordinators
1- Module 1 Neurological Disorders	Prof. Dr.Tarek Rageh	Prof. Dr.,Hamdy Nagiub, Hassan Farweez, Eman Khedr, Essam Saad Darweesh, Wafaa M Farghaly, Nageh Foly, Mohammad Abd El Rahman,Sherifa A Hamed, Gydaa Shehataha, Noha Abo-Elfetoh, Ahmad Hamdy Reda ElBadry, Anwer Mohammad,Mohamad Abd Elhamiud, Khald Osama, Ahmed Naser. Mohamed Mostafa, Aml Tohamy,Shady Safwat,Asma Mohammad,Nour Elhoda, Doaa Moktar.
2- Module 2 Psychiatric disorders	Prof Dr.Yaser El Sorogy .	Dr Wagih Abdel- Nasser, Alaa Darweesh, Khaled El Bieh., Hosam Khalifa, , Ahmed A el Bakey, Mohamed fawzy, ,Mostafa Noaman, Romany Gabera, Ali Abdel Aziz, Fadya Amed,Gyelan Karm Allaha
3- Module 3 Neurological and Psychiatric Emergencies	:Prof.Dr.Mohamd Abd El Rahman, Prof D Hossam Khalifa ,	Pro.Dr.Hamdy Nageeb, Waeigh Abdel Nasser, Dr.Alaa Darweish, Nageh Foly,Mohamed Abdel Rahman,Tarek Rageh, Yaser El Sorogy
4- Module 4 Neuroelectrophysiology and Neuroimaging	Prof .Dr Eman Khedr. Noha AboElfetoh	Prof , Dr.Wafaa Farghly, Dr.Sherifa Hamed, Tarek Rageh, Ghaydaa Shehata , Reda Badry.
5- Module 5 interventional Neurology and Psychiatry.	Prof.Dr.Mohamd Abd El Rahman	Dr. Nageh Foly , Khaled El Beih, Anwar M Ali,Ahmad Naser, Mohama Mostafa, Ahmad abdelbaki.Mostafa Noeaman
6- Module 6 Addiction	Pro Dr. Wagih Abdel Nasser .	Prof.Dr. Alaa Darweesh, Yasser Elsoregy ,Khaled ElBeih, and Hosam Khalifa,Romany Gabera.
7- Module 7 Psychometry Lab.	Pro Dr.Khaled ElBeih	Dr.Alaa Darweesh, Khaled El Bieh, and Yasser ElSroogy,M, Fawzy,Gyelan Karm Alllaha

Course structure

Course 7: Neurology and Psychiatry

Module/ Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	training	Total
-Module 1 Neurological disorders.(8-9month)	29.1%	1,2&3	7	36	43
-Module 2 Psychiatric disorders.(8-9month)	29.1%	1,2&3	7	36	43
-Module 3 Neurological and Psychiatric emergencies (10month).	10.4%	2&3	2.5	10	12.5
-Module 4 Neuroelectrophysiology and Neuroimaging (2 month).	10.4%	2&3	2.5	10	12.5
-Module 5 Interventional Neurology and Psychiatry (2month).	10.4%	2&3	2.5	10	12.5
-Module 6 Addiction (2 month).	6.25%	1,2,3	1.5	5	6.5
- Module 7 Psychometry Lab (2month).	4.16%	1, 3	1	3	4
Total No. of Units:	100%	3 years	24	110	134

2. Course Aims

2.1. To enable candidates to keep with international standards of Neurological and Psychiatric patients care by teaching high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area "neurological disorders , Psychiatric disorders, Neurological and Psychiatric emergencies, Neuroelectrophysiology and Neuroimaging studies, interventional Neurology and Psychiatry , Addiction and Psychometry Lab" enabling the candidates of making appropriate referrals to a sub-specialist.
2.2. Provide residents or candidates with fundamental knowledge of Stroke and Neurological intensive care unit as regards; equipments, techniques, indications, contraindications and training skills of different neurological intensive care techniques and interventions.
2.3. Provide residents or candidates with knowledge in diagnostic and interventional Neurology and Psychiatry. These include indication of use of different equipments, techniques in neuroelectrophysiology, Psychiatric and neuroimaging units , indications, contraindications and training skills of different techniques and tools used for diagnosis or treatment or assessment of severity of common Neurological and Psychiatric disorders.
2.4. Provide the residents or candidates with updated knowledge and applied aspects of Psychometry lab or Neuroelectrophysiology or Neuroimaging reports and choose the appropriate treatment according to the reported findings and appropriate investigatory tools for follow up.
2.5. To demonstrate the ability to provide patient- care that is appropriate, compassionate, and effective for treatment of common neurology and psychiatry health problems and the promotion of health.

3. Course intended learning outcomes (ILOs)

Course 7: Module (Unit) 1 Neurological Disorders

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the definition, neuroepidemiology, etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: - Cerebrovascular disorders. - Central nervous system infection. - Epilepsy . - Other Paroxysmal disorders (migraine- trigeminal neuroalagia). - Headache & pain. - Movement disorders. - Brain and spinal cord Tumors. - Spinal cord Diseases. - Peripheral neuropathy. - Muscles diseases. - Neuromuscular disorders. - Motor neuron diseases. - Cerebellar diseases. - Demylinating diseases(i.e.Multiple sclerosis-NMOSD-Other demylinatinating disorders - Neuroimmunology - Child Neurology. - Geriatric disorders(Dementia- Memory Impairment- Delirium) - Neuro-Oncology - Sleep disorders. - Neuroradiology. - Critical care neurology & emergencies . - Neurology of systemic diseases. -Neurological disorders in COVID 19 - Neurological sequelea of COVID 19.	Didactics Lectures Seminars Video tapes Tutorials Case discussion Journal club	Written exam. - Oral exam. - Clinical examination -Checklist -log book & portfolio. - MCQ. - OSCE. - problem solving

B. Outline the updated principles of the following: - Pathophysiological neurological symptoms and sign and related neuroimaging, laboratory, neuroelectrophysiology and functional assessment diagnostic tools related to different situations and conditions. - Clinical Approach to neurological situations; coma, delirium, speech disorders, seizures, and mimic picture, gait disorders, visual, hearing, involuntary movement and cognitive symptoms. - the updated management and preventive tools of the following: • Recurrence for CVS, • comorbidity and complication of epilepsy and CNS infection. • Neurological disorders with COVID 19		
C. State update and evidence based Knowledge of -Cerbrovascular stroke . Epilepsy , Headache, Autoimmune diseases of Nervous system. CNS infection. CVS and Epilepsy in pregnancy. Neurological manifestations of COVID19.		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Neurological disorders		
E. Mention the basic ethical and medicolegal principles relevant to the neurological disorder.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of speciality on the society.		

B-Intellectual outcomes

ILOS	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to **neurological disorders.**	Didactics Lectures Seminars Video tapes Tutorials Case discussion Journal club	Written exam. - Oral exam. - Clinical examination -Checklist -log book & portfolio. - MCQ. - OSCE. - problem solving
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to neurological disorders.		
C. Design and present cases , seminars in common problem.		
D-Formulate management plans and alternative decisions in different situations in the field of the neurological disorders.		

C-Practical skills (Patient Care)

ILOS	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	Written exam. - Oral exam. - Clinical examination -Checklist -log book & portfolio. - MCQ. - OSCE. - problem solving.
B. Order the following non invasive and invasive diagnostic procedures • Routine appropriate Lab investigations related to conditions mentioned in A.A. - Blood gases. - X ray skull, skull base and vertebrae. -CT and MRI of the brain and spinal cord. - CSF examination. - Blood gases. - EEG, - Evoked potential - EMG, NCV, F wave and H reflex -Diagnostic investigation of COVID 19.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures • Routine appropriate Lab investigations related to conditions mentioned in A.A. - Blood gases. - X ray skull, skull base and vertebrae. -CT and MRI of the brain and spinal cord. - CSF examination. - Blood gases. - EEG, - Evoked potential - EMG, NCV, F wave and H reflex.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	

-Diagnostic investigation of COVID 19.		
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures - EEG, - Evoked potential - EMG, NCV, F wave and H reflex. - Transcranial magnetic stimulation (rTMS). -Intrathecal injection.	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : - Transcranial magnetic stimulation (rTMS). -Intrathecal injection. -Plasma pharesis. -Disease modifying agents.	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Neurological disorders.	- Clinical round with senior staff - Perform under supervision of senior staff	Log book. - Objective structure clinical examination (OSCE).
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Neurological disorders.		
H. Provide health care services aimed at preventing health problems related to Neurological disorders like: • Neurological disorders mentioned above in A.A.		
I. Provide patient-focused care in common conditions related to Neurological disorders, while working with health care professionals, including those from other disciplines like: • Conditions mentioned in A.A		
J. Write competently all forms of patient sheet and discharge cards including reports evaluating these cards and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Case log -Observation and supervision -Written & oral communications -Work shop	Portfolios. Simulation.
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Observation & supervision Didactic lecture.	Simulation Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in seminar, conference, clinical round , consultations.		
K. Write a report in medical report, Referral to other centers, consult of other subspecialties and discharge card.		
L. Council patients and families about conditions mentioned above in A.A.		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Observation & supervision Didactic lecture	1- Objective structured clinical examination 2- Patient survey 3- 360 global rating.
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Observation & supervision Didactic Work shop	1. 360 global rating 2. Patient survey 3. portfolios
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

Course 7Module (Unit) 2 Psychiatric Disorders

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: -schizophrenia and other psychotic disorders - Mood disorders - Anxiety disorders - Sleep disorders - Sexual dysfunctions and paraphilias. - Somatoform and factious disorders. - Dissociative and amnestic disorders - Psychiatric aspects of medical patients (consultation Liaison psychiatry) - Child psychiatry - Geriatric psychiatry - Personality disorders - Dementia, delirium and other cognitive disorders. - Other Psychiatric disorders. - Eating disorders - Elimination disorders - Critical care for psychiatric patients (Emergencies) - Psychopharmacology -Psychiatric disorders in COVID 19	Didactics Lectures Seminars Video tapes Tutorials Case discussion Journal club -Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, Educational prescription - Present a case (true or simulated) in a grand round	Written exam. - Oral exam. - Clinical examination -Checklist -log book & portfolio. - MCQ. - OSCE. - problem solving
B. Illustrate the current and updated the principles of following: - Epidemiology of common psychiatric disorders e.g., Schizophrenia, Mood disorders, anxiety disorders, mental retardation, Drug dependence,		

dementia, - Antipsychotic drugs used in pregnancy . - Laboratory, imaging and psychometric investigations of psychiatric patients. - Forensic psychiatry. - Psychotherapy. - Preventive tools of recurrence and comorbidity of the following conditions : Schizophrenia, mood disorders, anxiety disorders, and Drug dependence.		
C. State update and evidence based Knowledge of: - Schizophrenia, mood disorders, anxiety disorders, and Drug dependence, dementia and cognitive disorders. -Management of common psychiatric disorders including different lines of treatment and drug therapy in child, elderly, pregnancy co morbid medical and organic disorders.		Written exam. - Oral exam. - Clinical examination -Checklist -log book & portfolio. - MCQ. - OSCE. - problem solving
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Psychiatric disorders		
E. Mention the basic ethical and medicolegal principles relevant to Psychiatric disorders.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of speciality on the society.		

B-Intellectual outcomes

ILOS	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Psychiatric **disorders.**	Clinical rounds Tutorial Senior staff experience	Procedure/case presentation Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to		

common clinical situations related to Psychiatric disorders.		
C. Design case presentation, seminars in common problem.		
D-Formulate management plans and alternative decisions in different situations in the field of Psychiatric disorders.		

C -Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	Written exam. - Oral exam. - Clinical examination -Checklist -log book & portfolio. - MCQ. - OSCE. - problem solving.
<u>B. Order the following non invasive and invasive diagnostic procedures</u> • Routine appropriate Lab investigations related to conditions mentioned in A.A. - Investigations for physical fitness. - EEG, - Neuroimaging. - Evoked potential - CSF examination - Blood gases. - Sleep analysis. - Diagnostic investigations of COVID 19.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
<u>C. Interpret the following non invasive and invasive diagnostic procedures</u> • Routine appropriate Lab investigations related to	-Clinical round with senior staff	

conditions mentioned in A.A. - Investigations for physical fitness. - EEG. - Neuroimaging. - Evoked potential - CSF examination - Blood gases. - Sleep analysis. - Diagnostic investigations of COVID 19.	-Observation -Post graduate teaching -Hand on workshops	
<u>D. Perform the following non invasive and invasive diagnostic and therapeutic procedures</u> - Transcranial magnetic stimulation. - psychotherapy. - ECT.	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
<u>E. Prescribe the following non invasive and invasive therapeutic procedures :</u> Transcranial magnetic stimulation. - psychotherapy. - ECT.	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Psychiatric disorders mentioned in A.A.	- Clinical round with senior staff - Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Psychiatric disorders		
H. Provide health care services aimed at preventing health problems related to Psychiatric disorders mentioned in A.A.		
K. Provide patient-focused care in common conditions related to Psychiatric disorders, while working with health care professionals, including those from other disciplines like conditions mentioned in A.A		
L. Write competently all forms of patient sheets and		

discharge cards including reports evaluating these cards and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club) * Researches and evidence based practice and internet updates about the conditions mentioned above in A.A	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	--Log book & portfolio -Procedure & case presentation
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.	Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	Log book & portfolio -Procedure & case presentation
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	-Clinical rounds -Senior staff experience	Log book & portfolio -Procedure & case presentation.

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group as regard diagnosis and treatment of the above mentioned conditions in A.A		
J. Present a case in seminars and conferences related to common problems of Psychiatric Disorders.		
K .Write a medical report for: Referral to fitness and consult of other subspecialties and Psychometric lab.	-Senior staff experience	
L. Council patients and families about role of family support in management of Psychiatric disorders including compliance on treatment, avoidance of recurrence risks and early manifestation of prodorma related to Psychiatric disorders.	-Perform under supervision of senior staff	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating.
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey.

Course 7:Module(Unit) 3 Neurological and Psychiatric Emergencies

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: - Stroke (Haemorrhagic and ischemic). - Central and peripheral respiratory distress related to neurogenic condition: - Myathenia gravis -Guillain Barre Syndrome - PolyMyositis. - Periodic muscle paralysis - Status epilepticus & migraineosus. - Coma due to different neurological disorders. -Neuroleptic malignant syndrome - suicide - Agitation. - Substance intoxication. - Bizarre behavior. -Neuropsychiatric emergencies in COVID19.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book &portfolio - MCQ -Oral and written exam
B. Illustrate the principles related to neuropsychiatric emergencies including the following: - Approach to coma related to neuropsychiatric disorders. . Approach to Patient with respiratory distress related to neuropsychatric Disorders. - General measures of : Patient Care and disability assessment, laboratory diagnostic tools ,	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book &portfolio - MCQ -Oral and written exam

homodynamic monitoring, pharmacokinetics of indicated or contraindicated drugs and monitoring level related to the mentioned conditions above in A.A. - Equipments used in stroke unit.		
C. State update and evidence based Knowledge of - Patient care in conditions mentioned in A.A. - Preventive tools of co morbidity bad outcome and mortality in stroke unit.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching.	-OSCE at the end of each year -log book &portfolio - MCQ -Oral and written exam
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to neurological and psychiatric emergencies.		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the neurological and psychiatric emergencies.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of in the field of neurological and psychiatric emergencies.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of neurological and psychiatric emergencies on the society and how good clinical practice improve these problems.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Neurological and Psychiatric emergencies.	Clinical rounds Senior staff experience	Procedure/case presentation Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Neurological and Psychiatric emergencies		
C. Design and lor present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Neurological and Psychiatric emergencies		
D-Formulate management plans and alternative decisions in different situations in the field of the Neurological and Psychiatric emergencies.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE -log book & portfolio - MCQ examination
B. Order the following non invasive and invasive diagnostic procedures - Routine appropriate Lab investigations related to conditions mentioned in A.A. - Blood gases. - X ray skull, skull base and vertebrae. - CT and MRI of the brain and spinal cord. - CSF examination. - Blood gases. - EEG, - Evoked potential - EMG, NCV, F wave and H reflex. -Specific investigations for emergency cases in COVID 19	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures - Routine appropriate Lab investigations related to conditions mentioned in A.A. - Blood gases. - X ray skull, skull base and vertebrae. - CT and MRI of the brain and spinal cord. - CSF examination.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on	Procedure presentation - Log book - Chick list

- Blood gases. - EEG, - Evoked potential - EMG, NCV, F wave and H reflex. - Diagnostic COVID 19 investigations.	workshops	
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures -Blood gases and its disturbances - metabolic profile . - Drug monitoring. -Disability scales.	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : - Haemodynamic monitoring. - Intravenous canulation. - Disability assessment scales. - Plasma pharesis - Disease modifying agents	-Clinical round with senior staff -Perform under supervision of senior staff.	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Neurological and Psychiatric Emergencies.	- Clinical round with senior staff - Perform under supervision of senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Neurological and Psychiatric Emergencies.		
M. Provide health care services aimed at preventing health problems related Neurological and Psychiatric Emergencies. Like conditions mentioned in A.A		
N. Provide patient-focused care in common conditions related to related Neurological and Psychiatric Emergencies, while working with health care professionals, including those from other disciplines like: • Conditions mentioned in A.A		

O. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club) * Researches and evidence based practice and internet updates about the conditions mentioned above in A.A	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds.	--Log book & portfolio -Procedure & case presentation
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group as regard diagnosis and treatment of the above mentioned conditions in A.A		
J. Present a case in seminars and conferences • Common problems related to Neurological and Psychiatric Emergencies		
K .Write a report medical report, discharge card, Assessment report report. Referral consults of subspeciality.	-Senior staff experience	
L. Council patients and families about Conditions mentioned in A.A.	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

Course 7 Module (Unit) 4 Neuroelectrophysiology and Neuroimaging studies

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical condition etiology ,clinical picture, finding of diagnostic tools and follow up assessment of the following conditions: - peripheral neuropathy. - muscle diseases. - Neuromuscular disorders. - dementia, delirium, - Encephalopathy. - Brain tumors. -Disseminated sclerosis&NMOSD. - Focal brain lesion. - Spinal cord diseases. - radiculopathy. - demylinating diseases.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE -spots -log book & portfolio - MCQ examination. -Oral and written exam
B. Outline the current and updated principles of following: - Indications, prognostic values, contraindication , precaution and diagnostic tools sensitivity of : EEG, MCV,SCV,EMG,VEP,ABR, SSEP, MEP. - Indications of neuroimaging studies; X ray spine& skull. CT brain & spine.		

MRI brain& Spine. -SPECT. -MRA&MRV,CT brain angiography.		
<u>C. State update and evidence based Knowledge of:</u> - Neuroelectrophysiology studies ; EEG, MCV,SCV,EMG, VEP, ABR, SSEP, MEP. - Neuroimaging studies; X ray spine& skull. CT brain & spine. SPECT MRI brain& spine,MRA,MRV. CT Angiography		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Neuroelectrophysiology and Neuroimaging studies.		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to Neuroelectrophysiology and Neuroimaging studies.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of in the field of Neuroelectrophysiology and Neuroimaging studies		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Neuroelectrophysiology and Neuroimaging studies on the society and how good clinical practice improve these problems.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to **Neuroelectrophysiology and**	-Clinical rounds -Senior staff	-Procedure & case presentation -log book &

Neuroimaging studies	experience	portfolio.
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to **Neuroelectrophysiology and Neuroimaging studies**		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Neuroelectrophysiology and Neuroimaging studies.		
D-Formulate management plans and alternative decisions in different situations in the field of the Neuroelectrophysiology and Neuroimaging studies.		

C- Practical skills (Patient Care)

ILOs	**Methods of teaching/ learning**	**Methods of Evaluation**
A. Obtain proper history and examine patients in caring and respectful behaviors.	Lectures Clinical rounds Seminars Journal club Case presentation	-Clinical examination -Checklist -log book & portfolio Procedure/ case presentation
B. Order the following non invasive diagnostic procedures of the following neuroelectrophysiology tests: EEG. MCV. SCV. EMG. F Wave. H reflex. VEP. ABR. SSEP. MEP	Clinical round with senior staff -Observation. -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list

Neuroimaging studies: - X Ray skull. - CT Brain. - MRI Brain and spine. -SPECT. -MRA&MRV, CT brain angiography.		
C. Interpret the following non invasive diagnostic procedures of the following: *Neuroelectrophysiology tests: EEG. MCV. SCV. EMG. F Wave. H reflex. VEP. ABR. SSEP. MEP *Neuroimaging studies: - X Ray skull. - CT Brain. - MRI Brain and spine. -SPECT. -MRA&MRV, CT brain angiography.	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops	Procedure presentation - Log book - Chick list
D. Perform the following non invasive diagnostic procedures *Neuroelectrophysiology tests: EEG. MCV. SCV. EMG. F Wave. H reflex. VEP.	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	

ABR. SSEP. MEP.		
E. Prescribe the following non invasive diagnostic procedures : EEG. MCV. SCV. EMG. F Wave. H reflex. VEP. ABR. SSEP. MEP	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for early diagnosis and follow up of common conditions related to Neuroelectrophysiological and neuroimaging studies.	- Clinical round with senior staff - Perform under supervision of senior staff	Procedure presentation - Log book - Chick list
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Neuroelectrophysiological and neuroimaging studies.		
H. Provide health care services aimed at preventing health problems related to Neuroelectrophysiological and neuroimaging studies related to conditions mentioned in A.A.		
I.Provide patient-focused care in common conditions related to Neuroelectrophysiological and neuroimaging studies, while working with health care professionals, including those from other disciplines like conditions mentioned in A.A		
J. Write competently all forms of patient		

charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	-Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club) * Researches and evidence based practice and internet updates about the conditions mentioned above in A.A	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	-Log book & portfolio -Procedure & case presentation
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	-Clinical rounds -Senior staff experience	Log book & portfolio -Procedure & case presentation

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group as regard diagnosis and treatment of the above mentioned conditions in A.A	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
J. Present a case related to Neuroelectrophysiological and neuroimaging studies in seminar or clinical round.	Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops.	Global rating -Procedure &case presentation -Log book & portfolio. -Chick list.
K. Write a report related to Neuroelectrophysiological and neuroimaging studies mentioned in A.A.	-Senior staff experience	
L. Council patients and families about Management plan including follow up and prognosis.	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.	Observation -Senior staff experience	-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.	Observation -Senior staff experience	-360o global rating - Patient survey
R. Assist patients in dealing with system complexities.	Observation -Senior staff experience	-360o global rating - Patient survey

Course 7: Module (Unit) 5 Interventional Neurology and Psychiatry

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the etiology clinical picture, management and indication of interventional procedure for the following conditions: - Brain tumor, stroke, organic brain syndrome for Neuroimaging modalities. -Different psychiatric disorders for ECT. -Neurological condition for rTMS e.g. neuropathic pain, CVS, disorders, spasticity, tinnitus, - Psychiatric condition for rTMS e.g.malignant neuroleptic syndrome , depression, schizophrenia. -Psychotherapy for different psychiatric disorders, personality disorders. -Interventional neuroradiology -Plasma Pharesis -Intravenous injection of disease modifying agents	-Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, Educational prescription -Present a case (true or simulated) in a grand round	-Log book& Portfolio -Oral exam & Written exam
B- Illustrate the principles technique of the mentioned diagnostic interventions above and therapeutic mechanisms roles for management and rehabilitation of different neurological and Psychiatric conditions.		
C. State update and evidence based Knowledge of interventional tools for the following: CVS, epilepsy, Movement disorders. rTMS. Psychiatric disorders.	-Didactic (lectures, seminars, tutorial) - journal	

ECT. Psychotherapy.	club, -Critically appraised topic, Educational prescription -Present a case (true or simulated) in a grand round	
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to interventional Neurology and Psychiatry.		
E. Mention the basic ethical and medico legal principles that should be applied in practice and are relevant to interventional Neurology and Psychiatry.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of interventional Neurology and Psychiatry.		
G. Mention the ethical and scientific principles of H. medical research methodology.		
H. State the impact of common health problems in the field of interventional Neurology and Psychiatry on the society and how good clinical practice improve thes problems.		-Log book& Portfolio -Oral exam & Written exam

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to interventional Neurology and Psychiatry.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to interventional Neurology and Psychiatry.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common		

clinical problems relevant to the field of interventional Neurology and Psychiatry.		
D-Formulate management plans and alternative decisions in different situations in the field of the interventional Neurology and Psychiatry.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Lectures Clinical rounds Seminars Journal club Case presentation	-Clinical examination -Checklist -log book & portfolio Procedure/ case presentation
B. Order the following non invasive and invasive diagnostic procedures rTMS for different neurological and psychiatric disorders. Intrathecal injection. Abreaction . Psychotherapy. -Interventional neuroradiology -Plasma Pharesis -Intravenous injection of disease modifying agents -Different interventional neuroimaging modalities related to mentioned topics above in A.A.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures Different interventional neuroimaging modalities in neuropsychiatric conditions related to mentioned topics above in A.A.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on	

	workshops	
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : • Rtms indication and application in different mentioned conditions in A.A. • ECT • Psychotherapy. • Preparation for abreaction. • -Plasma Pharesis • -Intravenous injection of disease modifying agents	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to interventional Neurology and Psychiatry.	- Clinical round with senior staff - Perform under supervision of senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to interventional Neurology and Psychiatry.		
H. Provide health care services aimed at preventing health problems related to interventional Neurology and Psychiatry like: Conditions mentioned in A.A.		
I. Provide patient-focused care in common conditions related to interventional Neurology and Psychiatry, while working with health care professionals, including those from other disciplines like: • rTMS. • ECT • Psychotherapy.		

• Abreaction. • Interventional neuroradiology • Plasma Pharesis • -Intravenous injection of disease modifying agents		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio --Log book & portfolio
B. Appraises evidence from scientific studies (journal club)	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Observation & supervision -Didactic	Simulation Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group. • A member of a health care team in respiratory intensive care • A leader of a health care team in night shift		
J. Present a case in • Common problems of interventional Neurology and Psychiatry.		
K. Write a report • Patients' medical reports	-Senior staff experience	
L. Council patients and families about used interventional tools mentioned in conditions mentioned in A.A.	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation & supervision -Didactic	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance

Course 7 (Module) 6 Addiction

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Prescribe the principles of etiology, pathophysiology, clinical picture , drug monitoring and management of the following conditions : -Opiate dependence -Cannabenoid dependence -Benzodiazepine dependence -Barbiturate dependence. -Alcohol dependence. -Stimulants dependence - Other types of substance dependence (volatiles). -New substance of abuse;Synthetic agents	-Didactic (lectures, seminars, tutorial) - Journal club, -Critically appraised topic, -Educational prescription	-log book & portfolio -Oral and written exam
B. Outline the current and updated principles of following: - the psychiatric disorders that share significant co morbidity with substance-related disorders. - the clinical features of intoxication, and withdrawal from the above mentioned substances and drugs . - Presentations of substance abuse in general medical practice. - Questionnaire that comprise (addiction severity).	-Didactic (lectures, seminars, tutorial) - Journal club, -Critically appraised topic, -Educational prescription	-log book & portfolio -Oral and written exam
C. State update and evidence based Knowledge of • management of intoxication and withdrawal manifestation induced by the substance listed above.		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Addiction.		
E. Mention the basic ethical and medicolegal principles principles that should be applied in practice and are relevant to Addiction.		
F. Mention basics and standards of quality assurance		

to ensure good clinical practice in the field of Addiction.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Addiction. and how good clinical practice improve these problems.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Sleep Medicine.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Sleep Medicine.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Sleep Medicine		
D-Formulate management plans and alternative decisions in different situations in the field of the Addiction.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial -Outpatient -Inpatient -Case presentation -Direct observation.	- log book - Objective structure clinical examination (OSCE) - MCQ
B. Order the following non invasive and invasive diagnostic procedures: - Drug screening - investigations for associated medical disorders (Hepatitis, HIV,COVID 19) - Psychometric assessment - Programs for relapse prevention - Rehabilitation programs.		
C. Interpret the following non invasive and invasive diagnostic procedures: - Drug screening results. - investigations for associated medical disorders (Hepatitis, HIV,COVID19) - Psychometric assessment - Programs for relapse prevention. - Rehabilitation programs.		
D. Prescribe the following non invasive therapeutic procedures : - Psychometric assessment. - Programs for relapse prevention. - Rehabilitation programs.		
E. Carry out patient management plans for common conditions related to addiction.	- Clinical rounds - Senior staff experience	
F. Use information technology to support patient care decisions and patient education in common clinical situations related to addiction. -Design internet homepages and follow up patients for addiction and how to diagnose and treat addiction related disorders.		
G. Provide health care services aimed at preventing health problems related to Sleep Medicine like:		

• Smoking related diseases		
H. Provide patient-focused care in common conditions related to addiction, while working with health care professionals, including those from other disciplines like: • When to refer to Addiction unit(intoxication or withdrawal) . • When and how to treat via different treatment plans and follow up in rehabilitation programs.		
I. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records).		

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(share in audit and risk management activities and use logbook). In conditions related to Addiction and Recent trends in management and rehabilitations.	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio - Simulation
B. Appraises evidence from scientific studies (journal club) about addiction and related conditions.		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment. about different clinical presentation of: - dependence , intoxication, withdrawal Related to substance and drug mentioned in A.A.	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Observation & supervision -Didactic	-Simulation -Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group. - A member of a health care team in Sleep lab clinical history taking and examination		
J. Present a case in • Common problems of Sleep Medicine.		
K. Write a report • Sleep lab report.	-Senior staff experience	
L. Council patients and families about • addiction, in Wards peds , emergency unit. • Avoidance of relapse • Rehabilitation programs. • Follow up programs.	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation & supervision -Didactic	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation & supervision -Didactic	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

Course 7(Module) 7 Psychometry Lab

A-Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the indication ,sensitivity of psychmetry test, and follow up assessment of the following condition for: -Mental sub-normality. -Dementias of different subtypes. - Personality disorders. -Different psychiatric disorders e.g. -Depression,. - Mania, - Obsessive compulsive disorders.(OCD), -Anxiety disorders, -Psychotic disorders, -Attention deficit hyperactivity disorders [ADHD],	-Didactic (lectures, seminars, tutorial) - Journal club, -Critically appraised topic, -Educational prescription	-log book & portfolio -Oral and written exam
B. Illustrate the principles of the psychometric test for other condition.	-Didactic (lectures, seminars, tutorial) - Journal club, -Critically appraised topic, -Educational prescription	-log book & portfolio -Oral and written exam
C. State update and evidence based Knowledge of • The psychometric test for other condition.		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Psychometry Lab.		
E. Mention the basic ethical and medicolegal principles principles that should be applied in		

practice and are relevant to Psychometry Lab.		
F. Mention basics and standards of quality assurance to ensure good clinical practice in the field of Psychometric Lab.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Psychometry Lab and how good clinical practice improve these problems.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Psychometry Lab.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Psychometry Lab.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Psychometry Lab.		
D-Formulate management plans and alternative decisions in different situations in the field of the Psychometry Lab		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial -Outpatient -Inpatient -Case presentation -Direct observation	- log book - Objective structure clinical examination (OSCE) - MCQ
B. **Order the following non invasive and i diagnostic Psychometric procedures:** - Intelligence tests e.g. -Stanford Binet test. -Wechsler intelligence scale, for: [Preschool children, Children, and Adults]. - Personality tests; e.g. a-[Structured Interview for the Five factor model of personality (SIFFM) b- Projective tests; e.g.-- - Rorschach tests - Thematic apperception test (TAT) - Children apperception test (CAT) - Word association tests. - Rating scales of Neurological Disorders(NIH,GCS,mRS,EDSS) - Tests for dementia; e.g. - Minimental state examination. MOCA - Tests for brain damage; e.g. - Bender Gestalt test - Benton visual retention test and Deterioration index (DI).		
C. **Interpret the following non invasive and diagnostic Psychometric procedure:** For test mentioned in C.B		
D. **Prescribe the following non invasive and diagnostic and evaluating treatment Psychometric**		

procedure: 1-Intelligence tests e.g. -Stanford Binet test. -Wechsler intelligence scale, for: [Preschool children, Children, and Adults]. 2- Personality tests; e.g. a-[Structured Interview for the Five factor model of personality (SIFFM) b- Projective tests; e.g.-- - Rorschach tests - Thematic apperception test (TAT) - Children apperception test (CAT) - Word association tests. - Rating scales 3- Tests for dementias; e.g. - Minimental state examination. 4- Tests for brain damage; e.g. - Bender Gestalt test - Benton visual retention test and Deterioration index (DI).		
E. Carry out patient management plans for common conditions related to Psychometry lab in conditions mentioned in A.A.	- Clinical rounds - Senior staff experience	
F. Use information technology to support patient care decisions and patient education in common clinical situations related to conditions mentioned in A.A.		
G. Provide health care services aimed at preventing health problems related to Psychometry Lab like: • Conditions mentioned in A.A		
H. Provide patient-focused care in common conditions related to Psychometry Lab, while working with health care professionals, including those from other disciplines like: • When to refer to lab.		

• When and how to Select via different Psychometric Scales for diagnosis and follow up.		
I. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(share in audit and risk management activities and use logbook). Related to Pychometry lab	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio - Simulation
B. Appraises evidence from scientific studies(journal club) about Pychometry lab		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment. about - Normal cut off point value for test - Normal standered curve , validation and sensitivity for test	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Observation & supervision -Didactic -Senior staff experience	-Simulation -Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group. - A member of a health care team in Pychometry lab clinical history taking and examination		
J. Present a case in • Common problems of Pychometry lab.		
K. Write a report • Pychometry lab report		
M. Council patients and families about • Pychometry lab and assessment for preparation , precaution, and follow up.	-Perform under supervision of senior staff	

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation & supervision -Didactic	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation & supervision -Didactic	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

4. Course contents (topic s/modules/rotation)
Course Matrix

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Module 1 Neurological disorders				
Cerebrovascular disorders	**A-H**	**A-E**	**A-J**	**A-K**
symptoms and sign and related neuroimaging, laboratory, neuroelectrophysiology and functional assessment diagnostic tools for this conditions:	**B-G**	**A-E**	**A-J**	**A-K**
Approach to ; coma delirium, speech disorders, seizures, and mimic picture, gait disorders, visual, hearing, involuntary movement and cognitive symptoms.	**B,D-F**	**A-E**	**A-J**	**A-K**
Topic	**Covered ILOs**			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Paroxysmal disorders (epilepsy- migraine- trigeminal neuroalagia	**A,C-H**	**A-D**	**A-J**	**A-R**
Movement disorders	**A,D-H**	**A-D**	**A-J**	**A-R**
Neuromuscular disorders	**A,D-H**	**A-D**	**A-J**	**A-R**
spinal cord diseases	**A,D-H**	**A-D**	**AJ**	**A-R**
Peripheral neuropathy	**A,D -H**	**A-D**	**A-J**	**A-R**
- Motor neuron diseases.	**A,D-H**	**A-D**	**A-J**	**A-R**
Muscle diseases	**A,D-F**	**A-D**	**A-J**	**A-R**

Demylinating diseases(i.e.Multiple sclerosis-NMOSD-Other demylinatinating disorders.	**A,D-H**	**A-D**	**A-J**	**A-R**
Neuroimmunology	**A,D-F**	**A-E**	**A-J**	**A-R**
Child Neurology	**A,D-F**	**A-E**	**A-J**	**A-R**
Geriatric disorders	**A,D-F**	**A-E**	**A-J**	**A-R**
Neuro-Oncology	**A,D-F**	**A-E**	**AJ**	**A-R**
Cerebellar disorders	**A,D-F**	**A-E**	**A-J**	**A-R**
Sleep disorders	**A,D-F**	**A-E**	**A-J**	**A-R**
Critical care neurology	**A,D-F**	**A-E**	**A-J**	**A-R**
Neuroradiology	**A,D-F**	**A-E**	**A-J**	**A-R**
Neuroepidemiology of common neurological disorders	**A,D-F**	**A-E**	**A-J**	**A-R**
Neurology of systemic diseases	**A,D-F**	**A-E**	**A-J**	**A-K**
-Neurological disorders in COVID 19 -Neurological sequelea of COVID 19. -Neurological manifestations of COVID19.	**A,D-F**	**A-E**	**A-J**	**A-K**
Module 2 Psychiatric disorders Covered ILOs				
Topic				
Psychiatric interview symptoms and signs	**B**	**A-D**	**A-L**	**A-R**
schizophrenia and other psychotic disorders	**A,C-H**	**A-E**	**A-L**	**A- R**
Mood disorders	**A,C-H**	**A-E**	**A-L**	**A- R**
Anxiety disorders	**A,C-H**	**A-E**	**A-L**	**A R**
Sleep disorders	**A,C-H**	**A-E**	**A-L**	**A-K**
Sexual dysfunctions and paraphilias.	**A,C-H**	**A-E**	**A-L**	**A-K**
Somatoform and factious disorders.	**A,C-H**	**A-E**	**A-L**	**A-K**

Dissociative and amnestic disorders	**A,C-H**	**A-E**	**A-L**	**A-K**
Psychiatric aspects of medical patients (consultation Iiason psychiatry)	**A,C-H**	**A-D**	**A-L**	**A-K**
Child psychiatry	**A,C-H**	**A-D**	**A-L**	**A-K**
Geriatric psychiatry	**A,C-H**	**A-D**	**A-L**	**A-K**
Personality disorders	**A,C-H**	**A-D**	**A-L**	**A-K**
Dementia, delerium and other cognitive disorders	**A,C-H**	**A-D**	**A-L**	**A-K**
Other Psychiatric disorders.	**A,C-H**	**A-D**	**A-L**	**A-K**
Eating disorders	**A,C-H**	**A-D**	**A-L**	**A-K**
Elimination disorders	**A,C-H**	**A-D**	**A-L**	**A-K**
Critical care for psychiatric patients (Emergencies)	**C-H**	**A-D**	**A-L**	**A-K**
Psychiatric disorders in COVID 19	**B**	**A-D**	**A-L**	**A-K**
Psychopharmacology	**B**	**A-D**	**A-L**	**A-K**
Epidemiology of common psychiatric disorders e.g., Schizophrenia, Mood disorders, anxiety disorders, mental retardation, Drug dependence, dementia.	**A,B,C**	**A-D**	**A-L**	**A-K**
Laboratory, imaging and psychometric investigations of psychiatric patients	**B**	**A-D**	**A-L**	**A-K**
Forensic psychiatry.	**A,B**	**A-D**	**A-L**	**A-K**
Psychotherapy.	**A,B**	**A-D**	**A-L**	**A-K**
Topic	**Covered ILOs**			
	Knowledge	**Intellectual**	**Practical skill**	**General Skills**
Module 3 Neurological and Psychiatric Emergencies				
Respiratory distress 2ry to neurogenic causes	**A-H**	**A-D**	**A-O**	**A-R**
COMA	**A-H**	**A-D**	**A-O**	**A-R**

Malignant neuroleptic syndrome	**A-H**	**A-D**	**A-L**	**A-R**
Agitated patient	**A-H**	**A-D**	**A-L**	**A-R**
Status epilepticus	**A-H**	**A-D**	**A-L**	**A-R**
Neuropsychiatric emergencies in COVID19	**A-H**	**A-D**	**A-L**	**A-R**
Module 4 Neuroelectrophysiology& Neuroimaging				
EEG	**A-H**	**A-D**	**A-J**	**A-R**
MCS	**A-H**	**A-D**	**A-J**	**A-R**
EMG	**A-H**	**A-D**	**A-J**	**A-R**
SCV	**A-H**	**A-D**	**A-J**	**A-R**
EVOKED POTENTIALS	**A-H**	**A-D**	**A-J**	**A-R**
F wave & H reflex	**A-H**	**A-D**	**A-J**	**A-R**
Neuroimaging	**A-H**	**A-D**	**A-J**	**A-R**
SPECT. -MRA&MRV CT brain angiography	**B,D-H**	**A-D**	**A-F**	**A-R**
Module 5 Interventional Neurology and Psychiatry				
ECT	**A-G**	**A-D**	**A-J**	**A-R**
psychotherapy	**A-G**	**A-D**	**A-J**	**A-R**
rTMS	**A-H**	**A-D**	**A-J**	**A-R**
Interventional neuroradiology	**B-F**	**A-D**	**A-J**	**A-R**
Plasma Pharesis	**A-D**	**A-J**	**A-R**	**A-D**
Intravenous injection of disease modifying agents	**A-D**	**A-J**	**A-R**	**A-D**
Module 6 Addiction				
Dependence	**A-H**	**A-D**	**A-J**	**A-R**
INTOXICATION	**A-H**	**A-D**	**A-J**	**A-R**
Withdrawal	**A-H**	**A-D**	**A-J**	**A-R**
Module 7 Psychometry lab				
INTELLIGENCE Test	**A-H**	**A-D**	**A-J**	**A-J**
Personality test	**A-H**	**A-D**	**A-J**	**A-R**
ORGANIC BRAIN DISORDERS & DEMENTIA TESTS Rating scales of different	**A-H**	**A-D**	**A-J**	**A-R**

neurological disorders and psychiatric disorders. -Child Psychometric scales				

5. Course Methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Clinical rounds
3. Clinical rotations
4. (service teaching) Observation
5. Post graduate teaching
6. Hand on workshops
7. Perform under supervision of senior staff
8. Simulations
9. Senior staff experience
10. Case presentation
11. Case log
12. Case Taking
13. outpatient clinic.

6. Course Methods of teaching/learning: for students with poor achievements

***extra number of didactic and clinical rounds according to needs.**

7. Course assessment methods

i. Assessment tools: Assessment tools:

1. oral examination
2. Clinical examination
3. Written examination
4. One MCQ examination
5. Objective structure clinical examination (OSCE)
6. Portfolios
7. Procedure/case Log book
8. Simulation
9. Record review (report)
10. Patient survey
11. 360o global rating
12. Check list evaluation of live or recorded performance

ii. Time schedule: At the end of 2nd part

iii. Marks: 1200= 100% of 2nd part.

8. List of references

i. Lectures notes

- Conferences.
- Staff members print out of lectures and/or CD copies
- Principles of Neurological (Book by Staff Members of the Department of Neurology and Psychiatry -Assiut University

ii. Essential books

- John C. M. Brust - CURRENT Diagnosis & Treatment Neurology-McGraw-Hill Education (2019).
- (In Clinical Practice) Ondrej Dolezal - Clinical Cases in Neurology-Springer International Publishing (2019).
- Michael Donaghy et al., Brain's Diseases of the nervous system, 12th edition ,2009,published on line 2011, Oxoford University.
- Lewis P (ED) HANDBOOK Merritt's Neurology,14th edition,2021Elan D. Louis MD, MS, Stephan A. Mayer MD, James M. Noble MD, MS, CPH, FAAN.
- Blueprints Neurology-LWW Wolters Kluwer (2019)(Blueprints) Frank W. Drislane_ Alexandra Hovaguimian_ Andrew W. Tarulli_ Aimee K. Boegle_ Courtney McIlduff_ Louis R. Caplan -
- Merritt's Neurology,Elan D. Louis, Stephan A. Mayer, James M. Noble -14th edition -LWW. Wolters Kluwer (2021).
- Netter's Concise Neurology Karl E. Misulis MD PhD, Thomas C. Head MD Updated Edition-Elsevier (2017)
- Bradley's Neurology in Clinical Practice, 2-Volume Set (Robert B. Daroff, Joseph Jankovic etc.),7th edition,Elsevier
- Neurology and Neurosurgery Illustrated 5th Edition by Kenneth W. Lindsay PhD FRCS (Author), Ian Bone FRCP FACP (Author), Geraint Fuller MD FRCP (Author).
- Algorithms for Emergency Neurology-Springer (2021).Giuseppe Micieli, Anna Cavallini,

Stefano Ricci, Domenico Consoli, Jonathan A. Edlow - Decision

- Case Files Neurology, Third Edition by Eugene C. Toy , Ericka Simpson, et al. | Sold by: Amazon.com Services LLC | Nov 10, 2017
- -Differential Diagnosis in Neurology and Neurosurgery: A Clinician's Pocket Guide by Sotirios A. Tsementzis | Dec 12, 2018
- On Call Neurology: On Call Series by Stephan A. Mayer MD and Randolph S. Marshall MD | Mar 14, 2020
- Neurology Secrets ,Part of: Secrets (58 Books) |by Joseph S. Kass MD JD and Eli M. Mizrahi MD |, 2016

.

-Kaplan & Sadock's Pocket Handbook of Clinical Psychiatry-Benjamin J. Sadock MD, Samoon Ahmad M.D., Virginia A. Sadock MD -LWW (2018)

-Oxoford handbook of Psychiatry David semple Roger Smyth, Jonathan Burns, Rajan Darjee, Andrew Mclntosh oxoford medical publication, 2nd edition 2009.OUP Oxford, 26 Mac 2009 - 977 halaman.

Comprehensive Clinical Psychiatry,2014 :Steven L Dubovsky (University of Buffalo, USA) ; and; Amelia N Dubovsky.

First Aid for the Psychiatry Clerkship-McGraw-Hill (2018). Latha Ganti, Matthew S. Kaufman, Sean M. Blitzstein -

-Fish's Clinical Psychopathology: Signs and Symptoms in Psychiatry 4th Edition (2019) by Patricia Casey.

- Kaplan & Sadock's synopsis of Psychiatry, 12th edition. By Robert Boland , By (author) Marcia Verduin , Dr. Pedro Ruiz,Wolters Kluwer Health.

-Latha Ganti, Matthew S. Kaufman, Sean M. Blitzstein - First Aid for the Psychiatry Clerkship-McGraw-Hill (2018)

iv-Recommended book:

- Localization in Clinical Neurology, 6th Edition (Paul W. Brazis, Joseph Masdeu e)

. - Principles of Neurology – Remond D. Adams, Maurice Victor, Alan H. Ropper.,2009

-Adams and Victor's Principles of Neurology 11th Edition by Allan Ropper Hardcove

-William Campbell, Richard J. Barohn - DeJong's The Neurologic Examination-LWW (2019)

-Comprehensive Textbook Of Psychiatry Hardcover English by Benjamin J. Sadock , Virginia A. Sadock , Dr. Pedro Ruiz,10th edition.

-Diagnostic and Statistical Manual of Mental Disorders, Text Revision DSM-5-TR 5th Edition by American Psychiatric Association (Author) www.appi.org › Products › DSM-Library › Diagnostic-and-Statistical-Man.

-APA Releases Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition(2022), Text Revision (DSM-5-TR).

Periodicals for last 3-5 years, Web sites, … etc

- Neurology**.**
- Lancet Neurology.
- Stroke.
- Epilepsia.
- BMJ (Neurology, Neurosurgery and Psychiatry).
- European Journal of Neurology.
- Egyptian Journal of Neurology, Psychiatry and neurosurgery.
- Clinical Neurophysiology.
- Current opinion Neurology.
- Years book of Psychiatry and Neurology

• American Journal of Psychiatry

•British journal of psychiatry.

• Egyptian Journal of Psychiatry.

- Years book of Psychiatry and Neurology.
- Archives of general psychiatry.

… etc.

V. Others

None.

9. Signatures

Course Coordinator: **…….**	**Head of the Department:** **……**
Date:	**Date:**

Annex 2, Program Academic Reference Standards [ARS]

1- Graduate attributes for Master degree in Neurology and Psychiatry

The Graduate (after residence training and master degree years of study) must:

1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit ***in Neurology and Psychiatry***

2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related speciality.

3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of ***Neurology and Psychiatr***y.

4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and updated information.

5- Identify and share to solve health problems in his speciality.

6- Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical and evidence based clinical care including update use of new technology in ***Neurology and Psychiatry***.

7- Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.

8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.

9- Acquire decision making capabilities in different situations related to ***Neurology and Psychiatry.***

10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.

11- Be aware of public health and health policy issues and share in system-based improvement of health care.
12- Show appropriate attitudes and professionalism.
13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in ***Neurology and Psychiatry*** or one of its subspecialties.

2- Competency based Standards for clinical master degree graduates

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.

2-1-B- The relation between good clinical care of common health problems in the speciality and the welfare of society.

2-1-C- Up to date and recent developments in common problems related to ***Neurology and Psychiatry.***

2-1-D- Ethical and medicolegal principles relevant to practice in ***Neurology and Psychiatry.***

2-1-E -Quality assurance principles related to the good medical practice in ***Neurology and Psychiatry.***

2-1-F- Ethical and scientific basics of medical research.

2.2- Intellectual skills:

By the end of the program, the graduate should be able to demonstrate the following:

2-2-A- Correlation of different relevant sciences in the problem solving and management of common diseases of ***Neurology and Psychiatry.***

2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to ***Neurology and Psychiatry*.**

2.2- C- Demonstrating systematic approach in studying clinical problems relevant to ***Neurology and Psychiatry***.

2-2-D- Making alternative decisions in different situations in ***Neurology and Psychiatry***.

2.3- Clinical skills

By the end of the program, the graduate should be able to

2-3-A - Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

2-3-B- Demonstrate patient care skills relevant to ***Neurology and Psychiatry*** for patients with common diseases and problems.

2-3- C- Write and evaluate reports for situations related to the field of ***Neurology and Psychiatry*.**

2.4- General skills

By the end of the program, the graduate should be able to

- ***Competency-based outcomes for Practice-based Learning and Improvement***

2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence,, improvements in patient care and risk management.

2-4-B- Use all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

- ***Competency-based objectives for Interpersonal and Communication Skills***

2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

- ***Competency-based objectives for Professionalism***

2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

- ***Competency-based objectives for Systems-based Practice***

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

2-4-g- Demonstrate skills of effective time management.

2-4-H- Demonstrate skills of self and continuous learning.

Annex 3, Methods of teaching/learning

Annex 3,Methods of teaching/learning

	Patient care	**Medical knowledge**	**Practice-based learning/ Improvement**	**Interpersonal and communication skills**	**Professionalism**	**Systems-based practice**
Didactic (lectures, seminars, tutorial)	X	X		X	X	X
journal club,	X	X	X			
Educational prescription	X	X	X	X	X	X
Present a case (true or simulated) in a grand round	X	X	X	X	X	
Observation and supervision	X		X	X	X	X
conferences		X	X	X		X
Written assignments	X	X	X	X	X	X
Oral assignments	X	X	X	X	X	X

Teaching methods for knowledge

- ❖ Didactic (lectures, seminars, tutorial)
- ❖ journal club
- ❖ Critically appraised topic
- ❖ Educational prescription (a structured technique for following up on clinical questions that arise during rounds and other venues).
- ❖ Present a case (true or simulated) in a grand round
- ❖ Others

Teaching methods for patient care

- ❖ Observation and supervision /Completed tasks procedure/case logs
- ❖ On-the-job" training without structured teaching is not sufficient for this skill (checklists).
- ❖ Simulation is increasingly used as an effective method for skill/ teamwork training.

Teaching methods for other skills

- ❖ Written communication (e.g., orders, progress note, transfer note, discharge summary, operative reports, and diagnostic reports).
- ❖ Oral communication (e.g., presentations, transfer of care, interactions with patients, families, colleagues, members of the health care team) and/or non verbal skills (e.g., listening, team skills)
- ❖ Professionalism, including medical ethics, may be included as a theme throughout the program curriculum that includes both didactic and experiential components (e.g., may be integrated into already existing small group discussions of vignettes or case studies and role plays, computer-based modules) and may be modeled by the faculty in clinical practice and discussed with the resident as issues arise during their clinical practice.

Annex 4, Assessment methods

Annex 4, ILOs evaluation methods for Master Degree students.

Method	Practical skills	K	Intellectual	General skills			
	Patient care	K	I	Practice-based learning/ Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Record review	X	X	X		X	X	X
Checklist	X				X		
Global rating	X	X	X	X	X	X	X
Simulations	X	X	X	X	X	X	
Portfolios	X	X	X	X	X		
Standardized oral examination	X	X	X	X	X		X
Written examination	X	X	X	X			X
Procedure/ case log	X	X					
OSCE	X	X	X	X	X	X	X

Annex 4, Glossary of Master Degree doctors assessment methods

- Record Review – Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.
- Chart Stimulated Recall – Uses the MSc doctor's patient records in an oral examination to assess clinical decision-making.
- Mini clinical evaluation: Evaluation of Live/Recorded Performance (single event) – A single resident interaction with a patient is evaluated using a checklist. The encounter may be videotaped for later evaluation.
- Standardized Patients (SP) – Simulated patients are trained to respond in a manner similar to real patients. The standardized patient can be trained to rate MSc doctor's performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MSc doctor's performance.
- Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MSc doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MSc doctors.
- Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by a MSc doctors.
- Case /problems – assess use of knowledge in diagnosing or treating patients or evaluate procedural skills.
- Models: are simulations using mannequins or various anatomic structures to assess procedural skills and

interpret clinical findings. Both are useful to assess practice performance and provide constructive feedback.

- 360 Global Rating Evaluations – MSc doctors, faculty, nurses, clerks, and other clinical staff evaluate MSc doctors from different perspectives using similar rating forms.
- Portfolios – A portfolio is a set of project reports that are prepared by the MSc doctors to document projects completed during the MSc study years. For each type of project standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes.
- Examination MCQ – A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
- Examination Oral – Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
- Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MSc doctors.

Annex 5, Program evaluation tools

By whom	Method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#2
Stakeholders	Reports Field visits questionnaires	#5
Senior students	questionnaires	#12
Alumni	questionnaires	#

Annex 6, Program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الماجستير مع المعايير الأكاديمية المعتمدة من كلية الطب – جامعة أسيوط لدرجة الماجستير في الأمراض العصبية والنفسية

I- General Academic Reference Standards (GARS) versus Program ARS

1- Graduate attributes

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in *Neurology and Psychiatry*	1- إجادة تطبيق أساسيات و منهجيات البحث العلمي واستخدام أدواته المختلفة
2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in *Neurology and Psychiatry*	2-تطبيق المنهج التحليلي واستخدامه في مجال التخصص
3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in *Neurology and Psychiatry.*	3-تطبيق المعارف المتخصصة و دمجها مع المعارف ذات العلاقة في ممارسته المهنية
4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and update information.	4-إظهار وعيا بالمشاكل الجارية و الرؤى الحديثة في مجال التخصص
5- Identify and share to solve health problems in Neurology and Psychiatry	5-تحديد المشكلات المهنية و إيجاد حلولا لها
6- Acquire all competencies that enable him to provide safe, scientific, ethical and evidence based clinical care including update use of new technology in Neurology and Psychiatry.	6-إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل التكنولوجيةالمناسبة بما يخدم ممارسته المهنية
7- Demonstrate interpersonal and	7-التواصل بفاعلية و القدرة على قيادة فرق

communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public. 8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.	العمل
9- Acquire decision making capabilities in different situations related to Neurology and Psychiatry	8-اتخاذ القرار في سياقات مهنية مختلفة
10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.	9- توظيف الموارد المتاحة بما يحقق أعلي استفادة و الحفاظ عليها
11- Be aware of public health and health policy issues and share in system-based improvement of health care.	10-إظهار الوعي بدوره في تنمية المجتمع و الحفاظ على البيئة في ضوء المتغيرات العالمية و الإقليمية
12- Show appropriate attitudes and professionalism.	11-التصرف بما يعكس الالتزام بالنزاهة و المصداقية و الالتزام بقواعد المهنة
13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Neurology and Psychiatry or one of its subspecialties.	12-تنمية ذاته أكاديميا و مهنيا و قادرا علي التعلم المستمر

2. Academic standard

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
2.1.A -Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problems and topics.	2-1-أ-النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
2.1.B- The relation between good clinical care of common health problems in *Neurology and Psychiatry* and the welfare of society.	2-1-ب-التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة.
2.1. C- Up to date and recent developments in common problems related to *Neurology and Psychiatry.*	2-1-ج-التطورات العلمية في مجال التخصص.
2.1. D- Ethical and medicolegal principles relevant to practice in the *Neurology and Psychiatry.*	2-1-د-المبادئ الأخلاقية و القانونية للممارسة المهنية في مجال التخصص.
2.1. E-Quality assurance principles related to the good medical practice in *Neurology and Psychiatry*	2-1-هـ- مبادئ و أساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. F- Ethical and scientific basics of medical research.	2-1-و- أساسيات وأخلاقيات البحث العلمي
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of *Neurology and Psychiatry* 2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to *Neurology and Psychiatry*.	2-2-أ- تحليل و تقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل
2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to *Neurology and Psychiatry*.	2-2-ب- حل المشاكل المتخصصة مع عدم توافر بعض المعطيات

2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of *Neurology and Psychiatry*.	2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية
2.2. C- Demonstrating systematic approach in studying clinical problems relevant to the *Neurology and Psychiatry*.	2-2-د- إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية
2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	2-2هـ- تقييم المخاطر في الممارسات المهنية في مجال التخصص
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of Neurology and Psychiatry 2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Neurology and Psychiatry.	2-2-أ- تحليل و تقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل
2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Neurology and Psychiatry.	2-2-ب- حل المشاكل المتخصصة مع عدم توافر بعض المعطيات
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of Neurology and Psychiatry.	2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية
2.2. C- Demonstrating systematic approach in studying clinical problems relevant to the Neurology and Psychiatry.	2-2-د- إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية
2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient	2-2هـ- تقييم المخاطر في الممارسات المهنية في مجال التخصص

care and risk management	
2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of improvements in patient scientific evidence, care and risk management	2-2-و- التخطيط لتطوير الأداء في مجال التخصص
2.2.D- Making alternative decisions in different situations in the field of Neurology and Psychiatry.	2-2-ز- اتخاذ القرارات المهنية في سياقات مهنية متنوعة
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to Neurology and Psychiatry for patients with common diseases and problems.	2-3-أ- إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص
2.3.C- Write and evaluate reports for Situation related to Neurology and Psychiatry.	2-3-ب- كتابة و تقييم التقارير المهنية
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to that speciality for patients with common diseases and problems.	2-3-ج- تقييم الطرق و الأدوات القائمة في مجال التخصص
2.4.D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-4-أ-التواصل الفعال بأنواعه المختلفة
2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.B- Use all information sources and technology to improve his practice.	2-4-ب- استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية
2.4.A-Demonstrate practice-based	2-4-ج- التقييم الذاتي وتحديد احتياجاته التعلمية الشخصية

learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.B- Use all information sources and technology to improve his practice. 2.4.E-Demonstrate professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	
2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, , improvements in patient care and risk management.	2-4-د- استخدام المصادر المختلفة للحصول على المعلومات و المعارف
2.4. C- Demonstrate skills of teaching and evaluating others.	2-4-هـ- وضع قواعد ومؤشرات تقييم أداء الآخرين
2.4. F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.	2-4-و- العمل في فريق ، وقيادة فرق في سياقات مهنية مختلفة
2.4.G- Demonstrate skills of effective time management.	2-4-ز- إدارة الوقت بكفاءة
2.4.H- Demonstrate skills of self and continuous learning.	2-4-ح- التعلم الذاتي و المستمر

Comparison between ARS and ILOS for Master degree in

Neurology and Psychiatry.

(ARS)	(ILOs)
2-1- Knowledge and understanding **2-1-A-** Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.	***2-1- Knowledge and understanding*** **2-1-A-** Explain the essential facts and principles of relevant basic sciences including, Neuroanatomy, Neuroemberyology ,Histology, Neurophysiology and Biochemistery related to Neurology and Psychiatry. **2-1-B-** Mention essential facts of clinically supportive sciences including Internal Medicine , general and special Psychology related to Neurology and Psychiatry. **2-1-C-** Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to *Neurology and Psychiatry*
2-1-B The relation between good clinical care of common health problem in *Neurology and Psychiatry* and the welfare of society.	**2-1-H-** State the impact of common health problems in *Neurology and Psychiatry* on the society and how good clinical practice improve these problems.
2-1-C- Up to date and recent developments in common Problems related to *Neurology and Psychiatry*.	**2-1-C-** Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to *Neurology and Psychiatry* **2-1-D-** Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to *Neurology and Psychiatry***.**

2-1-D- Ethical and medico legal Principles relevant to practice in Neurology and Psyc	2-1-E- Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to Neurology and Psychiatry
2-1-E-Quality assurance principles related to the good medical pra Neurology and Psychiatry	2-1-F- Mention the basics and standards of quality assurance to ensure good clinical practice in Neurology and Psychiatry
2-1-F- Ethical and scientific basics of medical research.	2-1-G- Mention the ethical and scientific principles of medical research methodology.
2-2- Intellectual skills: 2-2-A-Correlation of different relevant sciences in the problem solving and management of common diseases of the Neurology and Psychiatry	2-2- Intellectual skills: 2-2-A- Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Neurology and Psychiatry.
2-2-B-Problem solving skills based on data Analysis and evaluation (even in the absence of some)for common clinical Neurology and Psychiatry.	2-2-B- Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Neurology and Psychiatry.
2-2-C- Demonstrating systematic approach in studying clinical problems relevant to the Neurology and Psychiatry field.	2-2-C- Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the Neurology and Psychiatry field.
2-2-D Making alternative decisions in different situations in the field of the Neurology and Psychiatry.	2-2-D- Formulate management plans and alternative decisions in different situations in the field of Neurology and Psychiatry.

continuous (ARS)	Continuous (ILOs)
2-3- Clinical skills:	***2/3/1/Practical skills (Patient Care :)***
2-3-A- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.	**2-3-1-A-** Obtain proper history and examine patients in caring and respectful behaviors.
	2-3-1-B- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to *Neurology and Psychiatry*.
2-3-B- Demonstrate patient care skills relevant to that *Neurology and Psychiatry* for patients with common diseases and problems.	**2-3-1-C-** Carry out patient management plans for common conditions related to *Neurology and Psychiatry*.
	2-3-1-D- Use information technology to support patient care decisions and patient education in common clinical situations related to *Neurology and Psychiatry*.
	2-3-1-E- Perform competently non invasive and invasive procedures considered essential for the *Neurology and Psychiatry*.
	2-3-1-F- Provide health care services aimed at preventing health problems related to *Neurology and Psychiatry*.
	2-3-1-G- Provide patient-focused care in common conditions related to *Neurology and Psychiatry*, while working with health care professionals, including those from other disciplines.
2-3-C- Write and evaluate reports for situations related to the field of *Neurology and Psychiatry*.	**-3-1-H** Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical

	records).
2-4- General skills **2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management**	***2/3/2 General skills*** **2-3-2-A-** Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks). **2-3-2-B-** Appraises evidence from scientific studies. **2-3-2-C-** Conduct epidemiological studies and surveys.
2-4-B- Use all information sources and technology to improve his practice.	**2-3-2-C-** Conduct epidemiological studies and surveys. **2-3-2-D**.Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
2-4-C- Demonstrate skills of teaching and evaluating others.	**2-3-2-E-** Facilitate learning of students other health care professionals including their evaluation and assessment.
2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	**2-3-2-F-** Maintain therapeutic and ethically sound relationship with patients. **2-3-2-G-** Elicit information using effective nonverbal, explanatory, questioning, and writing skills. **2-3-2-H-** Provide information using effective nonverbal, explanatory, questioning, and writing skills. **2-3-2-I-** Work effectively with others as a member of a health care team or other professional group.

2-4-E-Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	**2-3-2-J-** Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society. **2-3-2-K**- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices. **2-3-2-L**-Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.	**2-3-2-M**-Work effectively in relevant health care delivery settings and systems including good administrative and time management **2-3-2-N-** Practice cost-effective health care and resource allocation that does not compromise quality of care. **2-3-2-O**- Assist patients in dealing with system complexities.
2-4-G- Demonstrate skills of effective time management	**2-3-2-M**-Work effectively in relevant health care delivery settings and systems including good administrative and time management
2-4-H- Demonstrate skills of self and continuous learning.	**2-3-2-A-** Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).

III- Program matrix
Knowledge and Understanding

Course	Program covered ILOs							
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E	2/1/F	2/1/G	2/1/H
Course 1 : Neuroanatomy, Emberyology and genetics	✓							
course 2 : NeuroPhysiology and Biochemistry	✓							
course 3 : Neuropathology and Psychopathology.	✓							
Course 4 : pharmacology	✓							
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	✓
Course 6: general and special psychology	✓	✓	✓	✓	✓	✓	✓	✓
Course 7 : Neurology &Psychiatry	✓	✓	✓	✓	✓	✓	✓	✓

Intellectual

Course	Program covered ILOs			
	2/2/A	2/2/B	2/2/C	2/2/D
Course 1 : Neuroanatomy, Emberyology and genetics	✓			
course 2 : NeuroPhysiology and Biochemistry	✓	✓		
course 3 : Neuropathology and Psychopathology.	✓			
Course 4 : pharmacology	✓			
Course 5 : Internal Medicine	✓	✓	✓	✓
Course 6: general and special psychology	✓	✓	✓	✓
Course 7 : Neurology &Psychiatry	✓	✓	✓	✓

Practical Skills (Patient Care)

Course	Program covered ILOs							
	2/3/1/A	2/3/1/B	2/3/1/C	2/3/1/D	2/3/1/E	2/3/1/F	2/3/1/G	2/3/1/H
Course 1 : Neuroanatomy, Emberyology and genetics								
course 2 : NeuroPhysiology and Biochemistry								
course 3 : Neuropathology and Psychopatholog								
Course 4 : pharmacology								
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	✓
Course 6: general and special psychology	✓	✓	✓	✓		✓	✓	
Course 7 : Neurology &Psychiatry	✓	✓	✓	✓	✓	✓	✓	✓

General Skills

Course	Program covered ILOs							
	2/3/2/A	2/3/2/B	2/3/2/C	2/3/2/D	2/3/2/E	2/3/2/F	2/3/2/G	2/3/2/H
Course 1 : Neuroanatomy, Emberyology and genetics				✓				✓
course 2 : NeuroPhysiology and Biochemistry				✓				✓
course 3 : Neuropathology and Psychopathology.				✓				✓
Course 4 : pharmacology				✓				✓
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓	✓
Course 6: general and special psychology	✓	✓	✓	✓	✓	✓	✓	✓
Course 7 : Neurology &Psychiatry	✓	✓	✓	✓	✓	✓	✓	✓

General Skills (cont.)

Course	Program covered ILOs						
	2/3/2/I	2/3/2/J	2/3/2/K	2/3/2/L	2/3/2/M	2/3/2/N	2/3/2/O
Course 1 : Neuroanatomy, Emberyology and genetics			✓		✓		
course 2 : NeuroPhysiology and Biochemistry			✓		✓		
course 3 : Neuropathology and Psychopathology.			✓		✓		
Course 4 : pharmacology			✓		✓		
Course 5 : Internal Medicine	✓	✓	✓	✓	✓	✓	✓
Course 6: general and special psychology	✓		✓	✓		✓	✓
Course 7 : Neurology &Psychiatry	✓	✓	✓	✓	✓	✓	✓

Annex 7, Additional information:

☒ **Department information: Neurology and Psychiatry department is divided into many specialized equipped units i.e.:**

- ❖ Neurological patients' wards: 72beds.
- ❖ Weekly 3 out patients' neurology clinics (new patients, follow up post discharge appointments, discharged critical care patients Follow up clinic)
- ❖ Weekly 2 epilepsy out patient clinic.
- ❖ Specialized outpatient clinic
- ❖ Stroke ICU (20 beds)
- ❖ Neurophysiology unit (equipped with computerized Digital EEG – convential EEG and Video monitoring EEG, 2 Nihon Khoden for Neurophysiology testing (evoked potential , EMG, NCVs, F wave…….) and magnetic lab (diagnostic and therapeutic tools).
- ❖ Sleep Lab
- ❖ Plasma pharesis unit.
- ❖ Multiple sclerosis unit
- ❖ Psychatric patients wards 72 beds.
- ❖ Addiction patients wards 10 beds.
- ❖ Weekly 2 days out patients' Psychiatry clinics (new patients, follow up post discharge appointments, discharged patients Follow up clinic.
- ❖ 2 days/Week out patients' Psychiatry clinics for treatment and follow up of chronic psychiatric patients.
- ❖ Psychomotor lab.

☒ **Staff members:**

Thirty four staff members: 13 Psychiatrists and 21 Neurologists.

They are including 16 professors, 6 assistant professors, 12 lectures.

☒ **Opportunities within the department:**

- ❖ Scientific Library (Neurology and Psychiatry Text Books and journals periodicals), MD, MSc thesis,
- ❖ Seminar room with data show
- ❖ Electronic Library of Scientific Seminars, case presentations.
- ❖ Audiovisual skill teaching unit (neurological and psychiatric examination- basic science and medical knowledge).
- ❖ New center.

☒ **Department quality control insurance for completing the program:**

Evaluation by:

- The director of program (head of department),
- Coordinators of Program, and each module, and staff members.
- Regular assessments.
- Log book monitoring.
- External evaluator& examiner.

(End of the program specifications)