The Hashemite University
عمادة التطوير الأكاديمي والتواصل الدولي
Deanship of Academic Development and International Outreach

وتستمر المسيرة

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Deanship of Academic Development
and International Outreach

عمادة التطوير الاكاديمي والتواصل الدولي

Syllabus*: Neurology (1615031403)

First/Second Semester 2023 /2024

COURSE INFORMATION	**Course Code:** 1615031403
Course Name: Neurology **Semester:** 4th Year, First and Second Semesters **Department:** Department of Internal Medicine **Faculty:** Medicine	**Section:** Neurology **Core Curriculum**: Seminars, lectures and Practical sessions
Day(s) and Time(s): Sunday till Thursday: 08:00-16:00 **Classroom:** King Hussein Medical Center	**Credit Hours:** 4 **Prerequisites**: Pass all preclinical courses

COURSE DESCRIPTION

This 4 week course is given as part of the clinical rotations for 4th year medical students. It will extend over a period of 4 weeks of blended learning (20% online education and 80% face-to-face education) emphasizing the fundamentals of the neurological history taking, neurological examination, pathophysiology and management of common and emergency neurological disorders. Topics of main focus include stroke, demyelinating disorders, epilepsy, movement disorders, headache and neuromuscular diseases. The rotation will include bedside teaching sessions as well as formal lectures. Outpatient and neurophysiological laboratory exposure may be incorporated if felt necessary, too.

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom based discussion
- Collaborative learning through small groups acting in an interdisciplinary context.
- Relevant films and documentaries
- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Model and Microsoft Team

FACULTY INFORMATION

Name	**Dr. Aseel Zghayer**
Academic Title:	**Full-time lecturer**
Office Location:	**Prince Hamzeh Teaching Hospital**
Telephone Number:	**+962781094750**
Email Address:	
Office Hours:	**Tuesday** 09.00-12.00

REFERENCES AND LEARNING RESOURCES

Required Textbook: List book or state: There is no required textbook for purchase. All compulsory weekly readings are available electronically on Model.

Suggested Additional Resources:

1. Clinical Neurology by Michael Aminoff (Author), David Greenberg (Author), Roger Simon (Author)
2. CURRENT diagnosis and treatment – Neurology by John C.M. Brust
3. Bradley's Neurology in Clinical Practice
4. Merritt's Neurology

Useful Web Resources: Uptodate

Course Learning Outcomes:

1. To give the student a firm background in the fundamentals of the neurological history and examination.
2. To help the student understand the fundamentals of neurological localization and appreciate the extreme value it has in the management process
3. To help the students to be capable of creating a prioritized differential diagnosis, and communicating the neurological problem to physicians.
4. To help the students in understanding common neurologic disorders and recognizing neurologic emergencies to initiate treatment.
5. To teach the student the fundamentals of the diagnostic work-up of the neurological patient.
6. To participate in training the students how to present cases in clinical settings both as inpatient and out-patient (e.g.: management round simulation)
7. To help the students to appreciate when to obtain neurological consultation.

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviors that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

<u>The instructor has the right to fail the coursework or deduct marks where plagiarism is detected</u>

Late or Missed Assignments

In all cases of assessment, students who fails to attend an exam, class project or deliver a presentation on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting a term paper on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty. Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.
- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Assessment	**Grade weighting**	Deadline Assessment
Evaluation	20%	Daily
OSCE and Mini OSCE Exams	35%	End of Rotation
Final MCQ Exam	45%	End of year

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of a combination of multiple choice, short answer, match, true and false and/or descriptive questions.

Homework: Will be given for each chapter, while the chapter in progress you are supposed to work on them continuously and submit in next lecture when I finish the chapter.

You are also expected to work on in-chapter examples, self-tests and representative number of end of chapter problems. The answers of self-tests and end of chapter exercises are given at the end of the book.

Quizzes: Unannounced quizzes will be given during or/and at the end of each chapter based upon the previous lectures. It will enforce that you come prepared to the class.

Grades are not negotiable and are awarded according to the following criteria*:

Letter Grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		2.25
C-		2.00
D+	Pass	1.75
D	Pass	1.50
F	Fail	0.00
I	Incomplete	-

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

Title of Seminar	Objective of seminar
1. Stroke	1. Be able to define stroke and its subtypes 2. Be able to identify risk factors for stroke 3. Identify the major blood vessels in the anterior and posterior circulation and the territories they supply 4. Be able to mention some of the etiologies for ischemic and hemorrhagic strokes 5. Realize the clinical features of stroke in different vascular territories 6. Realize the important role of tissue plasminogen activator (t-PA) in the management of acute stroke and the requirements for its use 7. Realize the major venues of secondary prevention of stroke 8. Realize and be able to prevent the common complications associated with stroke.
2. Epilepsy	1. Be able to define the concept of epilepsy and differentiate it from seizures. 2. Recognize the possible etiologies of seizure disorders. 3. Be familiar with the international classification of epilepsies and seizure disorders. 4. Be able to differentiate different types of seizures. 5. Be able to point out important aspects of history and physical examination related to seizure disorders. 6. Be familiar with the important investigation tools for a seizure patient, especially brain MRI and electroencephalography. 7. Be able to give a general outline for managing an epilepsy patient. 8. Be familiar with the major categories of anti-epileptic medications, their indications, and the major side effect of each. 9. Understand the concept and general management of status epilepticus
3. Muscle and Neuromuscular junction disorders	1. Be familiar with the general anatomy and physiology of the neuromuscular junction. 2. Be able to give the general symptoms common to most muscle diseases. 3. Be familiar with the major categories of muscle disease: Congenital and aquired. 4. Of the congenital muscle disease, be familiar with: Duchenne muscular dystrophy, Myotonic dystrophy and Emory Dreifuss muscular dystrophy. 5. Of the aquired myopathies, be familiar with: polymyositis, dermatomyositis, inclusion body myositis, thyroid myopathy, and medication induced myopathies. 6. Be able to outline the major specific

	investigations and management for a muscle disease patient. 7. Be familiar with myasthenia gravis as the most important disease of the neuromuscular junction. 8. Be able to give the clinical features of myasthenia gravis. 9. Be familiar with specific investigations for a myasthenic patient. 10. Be able to give a major outline for managing myasthenia gravis.
4. Multiple Sclerosis	1. Be familiar with the basic histology of a nerve cell and axon, including the process of myelination. 2. Be familiar with multiple sclerosis as the major CNS disease characterized by nerve cell demyelination. 3. Be able to give the major clinical features of multiple sclerosis. 4. Be familiar with the diagnostic tools and criteria for multiple sclerosis. 5. Be able to give the major findings on MRI and lumbar puncture in MS patients. 6. Be familiar with the treatment of multiple sclerosis relapses. 7. Be familiar with the disease modifying agents in multiple sclerosis: 8. Be familiar with the symptomatic treatment of MS.
5. Neuropathies	1. Understand the different terms used in the description of nerve diseases 2. Be able to classify neuropathies into different categories 3. Understand the signs and symptoms seen in neuropathy patients 4. Be able to give examples on different etiologies for neuropathy 5. Realize the differences in presentation between hereditary and acquired neuropathies 6. Realize the clinical features of the major acquired and hereditary neuropthies
6. Movement disorders	1. To define symptoms of movement disorders 2. To know classification schemes of movement disorders 3. To discuss genetics of movement disorders 4. To know treatment principles of certain diseases e.g. Parkinson's disease, Wilson's disease, Primary dystonia, Tourette's syndrome)
7. Localization in neurology	1. To review anatomy of major tracts (e.g. pyramidal tract, spinothalamic tract) 2. To review blood supply of brain 3. To discuss signs & symptoms of upper & lower motor neuron lesions

	4. To discuss localization principles of upper motor neuron disorders (e.g. spinal c cerebral hemisphere, brainstem) 5. To discuss localization principles of lower motor neuron disorders (e.g. nerve plexus)
8. Headache	1. To understand classification scheme of headache 2. To discuss the clinical presentation, pathophysiology, and diagnostic tests o different primary headache disorders (e.g. migraine, cluster & tension headache 3. To recognize ominous causes of headache. 4. To review treatment principles of headache