The University of Jordan

الجامعة الاردنية

Form: Course Syllabus	Form Number	EXC-01-02-02A
	Issue Number and Date	2/3/24/2022/2963 05/12/2022
	Number and Date of Revision or Modification	
	Deans Council Approval Decision Number	265/2024/24/3/2
	The Date of the Deans Council Approval Decision	2024/1/23
	Number of Pages	06

1.	**Course Title**	Special surgery - Neurosurgery
2.	**Course Number**	0506504
3.	**Credit Hours (Theory, Practical)**	2 hours out of 12 special surgery
	Contact Hours (Theory, Practical)	Theory: 13 Lectures Practical: 14 days of clinical training and interactive activities
4.	**Prerequisites/ Corequisites**	
5.	**Program Title**	Doctor of Medicine
6.	**Program Code**	05
7.	**School/ Center**	School of Medicine
8.	**Department**	Special Surgery Department
9.	**Course Level**	Bachelor
10.	**Year of Study and Semester (s)**	Fifth year
11.	**Program Degree**	Bachelor
12.	**Other Department(s) Involved in Teaching the Course**	-
13.	**Learning Language**	English
14.	**Learning Types**	■ Face to face learning Blended ☐ Fully online
15.	**Online Platforms(s)**	☐ Moodle ■ Microsoft Teams
16	**Issuing Date**	30/12/2023
17.	**Revision Date**	2025/5/11

18. Course Coordinator:

Name: Dr Mohamad Yasin

Contact hours: Sunday 10-2 pm and Tuesday 1 pm- 3pm

Office number: Ortho clinic **Phone number:** 0096265353444 / 2727

Email: myasin@ju.edu.jo

Course Coordinator/ neurosurgery section :

Name: Dr Mahmoud Abdallat

Contact hours: Monday 12 – 2 pm and Wednesday 11 am- 1

Office number: Neurosurgery clinic **Phone number:** 0096265353444

Email: Mahmoud.abdallat@ju.edu.jo

19. Other Instructors:

Name: Prof. Walid Maani Contact hours: Monday and Tuesday (11-12)

Office number: Neurosurgery clinic/JUH Phone number: 0096265353444

Email: wmaani@gmail.com

Name: Dr.Tareq Kanaan Contact hours: Sundays and Thursdays (10-11)

Office number: Neurosurgery clinic/JUH Phone number: 0096265353444

Email: tkanaan@web.de

Name: Dr. Qussai Alsabagh Contact hours: Sundays and Tuesdays (11:00-12:00)

Office number: Neurosurgery clinic/ JUH Phone number: 0096265353444

Email: Q.alsabbagh@ju.edu.jo

20. Course Description:

As stated in the approved study plan.

A- Course Description:

This course covers a wide variety of common neurosurgical and traumatology topics, Students learn about the basics, etiology, pathogenesis, signs and symptoms of different neurosurgical and traumatology conditions and to be able to integrate the clinical, laboratory and radiological means to reach a diagnosis of common pathologies, in addition to ways of their conservative and surgical treatment including physiotherapy and rehabilitation.

The rotation period is 2 weeks of clinical training including seminars, group discussions, attending outpatients and teaching rounds.

B- Aims:

For the student to be able to perform a focused history and physical examination of the patient with a neurosurgical complaint, to be able to identify the basic signs on regular skull and spine X-rays, to differentiate between CT scans and MRI, and to be able to diagnose and initially treat neurosurgical emergencies and how we manage common pathologies. The program of medical doctor (MD) provides opportunities for the students to develop and demonstrate knowledge attitudes and skills in the areas listed

below. The learning outcomes specified reflect the expectation of the community as broadly pointed to in the university mission.

21. Program Intended Learning Outcomes: (To be used in designing the matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program)

PLO's	*National Qualifications Framework Descriptors*		
	Competency (C)	Skills (B)	Knowledge (A)
1.	☐	☐	■
2.	☐	■	☐
3.	■	☐	☐
4.	☐	☐	■
5.	☐	■	☐
6.	■	☐	☐
7.	☐	☐	■
8.	■	☐	☐

* Choose only one descriptor for each learning outcome of the program, whether knowledge, skill, or competency.

1. Demonstrate basic knowledge of normal human structure and function at molecular, genetic, cellular, tissue, organ, system and whole-body levels in terms of growth, development, and health maintenance. Analyze the basic molecular and cellular mechanisms involved in the causation and treatment of human disease and their influence on clinical presentation and therapy.

2. Collect, interpret, document, and communicate accurately a comprehensive medical history, including the psychological and behavioral factors, and a thorough organ-system-specific physical examination inclusive of the mental status of the patient.

3. Integrate and communicate collected clinical information in the construction of appropriate diagnostic and therapeutic management strategies to identify life-threatening conditions ensuring prompt therapy, referral, and consultation with relevant disciplines and skillfully perform basic medical procedures for general practice on patients with common illness, acute and chronic, taking into account environmental, social, cultural and psychological factors.

4. Demonstrate in-depth knowledge of the epidemiology and biostatistics of common diseases, and analyze the impact of ethnicity, culture, socioeconomic factors and other social factors on health, disease and individual patient's health care.

5. Communicate effectively and professionally, both orally and in writing, with patients, their families, and with other healthcare providers utilizing information technology resources in his/her scholarly activities and professional development with the ability to teach others, and to understand and respect other healthcare professionals 'roles, and apply the principles of multidisciplinary teamwork dynamics and collaboration.

6. Apply scientific methods including evidence –based approach to the medical practice including problem identification, data collection, hypothesis formulation, etc., and apply inductive reasoning to problem solving and ensure that clinical reasoning and decision making are guided by sound ethical principles.

7. Demonstrate knowledge of scientific research methods and ethical principles of clinical research and be able to write research proposals or research papers.

8. Demonstrate professionally the skills needed for Quality improvement, lifelong learning, and continuous medical education including the ability to identify and address personal strength and weakness, self-assess knowledge and performance, and develop a self-improvement plan.

22. Course Intended Learning Outcomes: (Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

Course ILOs #	The learning levels to be achieved						Competencies
	Remember	Understand	Apply	Analyse	Evaluate	Create	
1.	✓	✓					Understand the principles of management of the neurosurgical disorders
2.		✓	✓	✓	✓	✓	Understand the principles of medical care of neurosurgical patients. Identify neurological disorders that are best treated by surgery
3.		✓	✓	✓	✓	✓	Demonstrate awareness of the appropriate surgical

							techniques and recommended postoperative care.
4.		✓	✓	✓	✓	✓	. Select the appropriate methods for the diagnosis of neurosurgical disorders and diseases of the peripheral and central nervous system and their management
5.		✓	✓	✓	✓	✓	Communicate with patients, colleagues, and staff verbally and in writing
7		✓	✓	✓	✓	✓	Manipulate data in form of data collection, analysis, and interpretation
8		✓	✓	✓	✓	✓	Apply the problem-solving approach in the practice of medicine

23. The matrix linking the intended learning outcomes of the course -CLO's with the intended learning outcomes of the program -PLOs:

Program ILOs / ILOs of the course	CLO (1)	CLO (2)	CLO (3)	CLO (4)	CLO (5)	CLO (6)	CLO (7)	CLO (8)	Descriptors **		
									A	B	C
PLO (1)	✓								✓		
PLO (2)		✓								✓	
PLO (3)			✓								✓
PLO (4)				✓					✓		
PLO (5)					✓					✓	
PLO (6)						✓					✓
PLO (7)							✓		✓		
PLO (8)								✓			✓

***Linking each course learning outcome (CLO) to only one program outcome (PLO) as specified in the course matrix.**

****Descriptors are determined according to the program learning outcome (PLO) that was chosen and according to what was specified in the program learning outcomes matrix in clause (21).**

24. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome (SLO)	Descriptors **	Learning Types (Face to Face/Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Lecturing	Evaluation Methods	Learning Resources
1	1.1	Head injury	To be able to diagnose, investigate and manage. Know types and classification of HI and early and late complications. Differentiate types of intracranial hematomas on CT scans .	K S C	Face to face		Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*
	1.2	Spinal injury	To be able to diagnose, investigate and manage.	K S C	Blended	Zoom	Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*
	1.3	Hydrocephalus and spina bifida	To be able to diagnose, investigate and manage.	K S C	Face to face		Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*
	1.4	Degenerative spinal diseases	To be able to diagnose, investigate and manage disc prolapse and canal stenosis in lumbar and cervical spine and know common surgical procedures for their management.	K S C	Face to face		Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*
	1.5	Brain tumours	To be able to diagnose and investigate and acknowledge management	K S C	Blended	Zoom/ Teams	Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*
	1.6	Spinal tumours	To be able to diagnose and investigate.	K S C	Face to face		Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*
	1.7	Intracranial hypertension	To be able to diagnose, investigate and manage.	K S C	Face to face		Synchronous Lecturing	Written exam OSCE exam	*

								Attendance Evaluation	
2	2.1	Epilepsy and functional neurosurgery	To be able to investigate and select patients and acknowledge modalities of surgeries	K S C	Face to face		Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*
	2.2	Subarachnoid haemorrhage	To be able to diagnose, investigate and manage.	K S C	Face to face		Synchronous Lecturing	Written exam OSCE exam Attendance Evaluation	*

** K: Knowledge, S: Skills, C: Competency

* Lecture notes in ENT

25. Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Descriptors**	Period (Week)	Platform
Subsurgery OSCI	30	Head injury, Spinal injury, Hydrocephalus, and spina bifida, Degenerative spinal diseases, Brain tumours, Spinal tumours, Intracranial hypertension, Epilepsy and functional neurosurgery, Subarachnoid haemorrhage	1.1,1.2,1.3,1.4,1.5,1.6,1.7,2.1,2.2	K S C	Part of the end of sub surgery course exam	Paper-based exam
Evaluation including attendance	20	Head injury, Spinal injury, Hydrocephalus, and spina bifida, Degenerative spinal diseases, Brain tumours, Spinal tumours, Intracranial hypertension, Epilepsy and functional neurosurgery, Subarachnoid haemorrhage	1.1,1.2,1.3,1.4,1.5,1.6,1.7,2.1,2.2	K S C	At the end of the 2 weeks ENT rotation	-
End of year MCQ test as part of sub surgery exam	50	Head injury, Spinal injury, Hydrocephalus, and spina bifida, Degenerative spinal diseases, Brain tumours, Spinal tumours, Intracranial hypertension, Epilepsy and functional neurosurgery, Subarachnoid	1.1,1.2,1.3,1.4,1.5,1.6,1.7,2.1,2.2	K S C	At the end of each academic year (usually in June)	Computer or paper-based exam

		haemorrhageconditions, Epistaxis & nasal trauma, Chronic suppurative otitis media			

** K: Knowledge, S: Skills, C: Competency

*** According to the instructions for granting a Bachelor's degree.**

****According to the principles of organizing semester work, tests, examinations, and grades for the bachelor's degree.**

Final exam specifications table

(Table is completed on a separate form by course coordinators prior to conduction of each exam according to Accreditation and Quality Assurance Centre procedures and forms)

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO Weight	CLO no.
Create %10	Evaluate %10	analyse %10	Apply %20	Understand %20	Remember %30					
										1
										2
										3
										4
										5

26. Course Requirements:

(Class room Lectures

- ✓ Seminar room
- ✓ Internet connection and lecturing tools (Zoom/ Teams. Etc)
- ✓ Outpatient clinics
- ✓ Neurosurgery surgery theatres

Teaching Methods and Assignments:

Development of ILOs is promoted through the following <u>teaching and learning methods</u>:

- ✓ Morning and evening class room/ online lectures
- ✓ Interactive activities and case discussions
- ✓ Outpatient clinics
- ✓ Seminar discussions
- ✓ **Observation of Neurosurgery common surgeries**

27. Course Policies:

A- Attendance policies:

Attendance will be monitored by the course coordinator. Attendance policies will be announced at the beginning of the course.

B- Absences from exams and handing in assignments on time:

Will be managed according to the University of Jordan regulations. Refer to http://registration.ju.edu.jo/Documents/daleel.pdf

C- Health and safety procedures:

Faculty Members and students must always, conform to Health and Safety rules and procedures.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this course and integrity in your behavior in and out of the classroom. Students violate this policy would be subjected to disciplinary action according to University of Jordan disciplinary policies.

E- Grading policy:

Grade-point average, Rules are preset by the Faculty and Department Councils

F- Available university services that support achievement in the course:

Availability of comfortable lecture halls, data show, internet service and E learning website https://elearning.ju.edu.jo/

28. References:

A. Required book (s), assigned reading and audio-visuals:
Essential Neurosurgery, Andrew H. Kaye. Handbook of Neurosurgery by Mark S. Greenberg

B. Recommended books, materials, and media:
Web based resources: https://www.uptodate.com/

Name of course coordinator /Neurosurgery Section Dr Mahmoud Abdallat	Signature: Abdallat	Date: 30.06.2025
Name of the Head of Department Dr. Mutasem AlRabi	Signature:	Date: 9.9.2025
Name of the Head of Quality Assurance Committee/ Department Dr Enas Al-Zayadneh	Signature:	Date: 2025/5/11
Name of the Head of Quality Assurance Committee/ School Professor Ayman Wahbeh	Signature:	Date: 10/7/2025
Name of the Dean Professor Ayman Wahbeh	Signature:	Date: 10/7/2025

THE UNIVERSITY OF JORDAN
School of Medicine
Department of Special Surgery

الجامعة الأردنية
كلية الطب
UNIVERSITY OF JORDAN SCHOOL OF MEDICINE