

Odessa National Medical University
Medical Faculty
Department of Neurology and Neurosurgery

Course Syllabus
«Neurosurgery»

Volume	45 hours (1,5 credits)
Semester, Year of study	9 and 10 semesters, 5 year students
Days, time, place	Conducting a discipline occurs according to the approved schedule of classes Clinical bases of the department: Hospital №11; Odessa Regional Hospital
Teachers	Д.мед.н., професор Сон Анатолій Сергійович К.мед.н., доцент Кардаш Костянтин Анатолійович К.мед.н., асистент Гафійчук Ю.Г. Асистент Сербін Ігор Володимирович Асистент Подмазко Катерина В'ячеславівна Асистент Шептіліс Сергій Олександрович
Phone	(048)7500318
E-mail	neurology@onmedu.edu.ua
Workplace	Clinical bases of the department: Hospital №11; Odessa Regional Hospital
Counseling	Online consultations are carried out using the MS Teams Platform, ZOOM by pre-arrangement

COMMUNICATION

Depending on the form of training (distance or auditorium) communication with students will be carried out using e-mail, social networks, telephone, eye meetings

COURSE ANNOTATION

Description of the discipline

The subject of study of the discipline is: Neurosurgery - Applied and Fundamental Medical Science, a practical field of medicine, which is a surgery of diseases and lesions of the central and peripheral nervous system of various genesis (traumatic, tumor, infectious, parasitic, etc.), vascular pathology of the main and spinal cord, surgery on the leading paths and centers of the central nervous system, surgery of non-adulter pain syndromes and the effects of lesions of the central nervous system and PNS of different genesis.

Interdisciplinary bonds

Neurosurgery, as a science, is closely associated with other fundamental medical disciplines and:

Anatomy of a person; histology, cytology, cytology and embryology; Physiology, pathomorphology; pathophysiology; clinical disciplines - general surgery (operative surgery and topographic anatomy), propaedeutics of internal medicine, propaedeutics of pediatrics, neurology, psychiatry, ophthalmology, otorhinolaryngology, traumatology and orthopedics, oncology, radiology, anesthesiology and intensive care, pharmacology and integrated with these disciplines;

II. Neurosurgery - implies the integration of teaching first with educational disciplines where surgical methods of treatment (general surgery, traumatology and orthopedics, anesthesiology and intensive care, oncology, obstetrics and gynecology, ophthalmology, otorhinolaryngology, etc.), as well as other clinical disciplines - Neurology, psychiatry, therapy, endocrinology, functional diagnostics, radiology, etc., and forms the ability to apply knowledge in the process of professional activity at the doctor's level of the main profile;

The purpose of teaching the discipline "Neurosurgery" is to improve knowledge of diagnostics, treatment and prevention of diseases of the nervous system

The main tasks of studying the discipline "Neurosurgery" are:

- surgical diseases and lesions of the central and peripheral nervous system of different genesis (traumatic, tumor, infectious, parasitic, etc.), vascular pathology of the main and spinal cord, surgery on the leading paths and centers of the central nervous system, surgery of nongain pain syndromes and the effects of central nervous system lesions and PNS of different genesis. Knowledge of the basics of the clinical course of neurosurgical diseases, modern methods of diagnosis and treatment of neurosurgical patients, ability to provide urgent.

- acquiring skills and skills to examine the patient and registration of results in the relevant medical documentation;

- Formation of moral and ethical and deontological qualities in professional communication with patients.

Discipline provides acquisition by students of **competencies:**

Integral: the ability to solve typical and complex specialized tasks and practical problems in professional health care or in learning process involving research and / or innovation and characterized by integrity and uncertainty of conditions and requirements.

General:

1. Ability to abstract thinking, analysis and synthesis;
2. Ability to learn and master modern knowledge;
3. Ability to apply knowledge in practical situations;
4. Ability to plan and manage at times;
5. Knowledge and understanding of the subject area and understanding of professional activity;
6. Skills for using information and communication technologies;
7. Ability to adapt and action in a new situation;
8. Ability to make substantiated solutions;
9. Ability to work in a team;
10. Interpersonal interaction skills;

11. Definition and persistence on the tasks and duties taken;
12. Striving for environmental preservation;
13. Ability to act on the basis of ethical reasons.

Special (professional, subject):

1. Collection of anamnesis in the patient;
2. Conducting an objective examination of the patient;
3. Assessment of the severity of clinical manifestations of the disease;
4. Preparation of a survey plan and evaluate their results;
5. Conducting differential diagnostics;
6. Ensuring care for patients;
7. Detect and evaluate acute medical states;
8. Providing first medical care;
9. Appointment of appropriate treatment;
10. Knowledge of protocols for assistance in various types of urgent states in patients.

Learning results:

Integrative final programming learning outcomes, which promotes educational discipline:

- Ability to conduct professional activity in social interaction based on humanistic and ethical principles;
- Ability to identify future professional activities as socially significant for human health;
- Ability to use knowledge and understanding of the subject area and understanding of the profession;
- Ability to show knowledge in practical situations;
- Ability to use the results of independent search, analysis and synthesis of information from various sources to solve the typical tasks of professional activity;
- Ability to argue information for decision-making, to be responsible for them in standard and non-standard professional situations;
- Understanding and observance of the principles of deontology and ethics in professional activity;
- understanding of the norms of sanitary and epidemic regime and safety requirements in the implementation of professional activity;
- Understanding of self-regulation and maintenance of a healthy lifestyle, ability to adapt and action in a new situation;
- Ability to realize the choice of communication strategy, interpersonal interaction skills;
- Ability to adhere to the rules of communication in professional interaction with colleagues, guides, work efficiently in the team;
- Ability to communicate effectively, form and solve the task of their native language both orally and in writing;
- Ability to use some informational and communication technologies;
- Ability to analyze and evaluate the results of research, age, sexual characteristics of the human body, clinical anatomy of human body parts, organs and other anatomical formations;
- To collect, interpret relevant data and analyze complexity within a specialization for submitting judgments that highlight social and ethical problems;
- Understanding the desire to preserve the environment;

Learning results for discipline:

Know:

- Identify etiological and pathogenetic factors of the most common neurosurgical diseases.
- To determine the tactics of conducting neurosurgical patients and analyze the data of auxiliary surveys
- To represent a typical clinical picture and put a preliminary diagnosis of basic neurosurgical diseases.
- Analyze the main indicators of laboratory and instrumental methods of research of neurosurgical patients.

Be able:

- Conduct a survey of a patient with neurosurgical pathology.
- To evaluate the severity of craniocerebral trauma.
- Provide urgent medical care to patients with craniocerebral trauma.
- Provide emergency assistance in urgent cases with patients with brain tumors.
- Provide emergency assistance to patients with cerebrovascular pathology in critical condition.
- Provide emergency assistance to patients with intracranial and inflammatory complications.
- Provide emergency assistance to patients with transparency.

COURSE DESCRIPTION

The course will be set out in the form of lectures (4 hours) and practical classes - 26 hours, organization of independent work of students - (15 hours).

The types of educational activities of students in accordance with the curriculum are: lectures, practical classes, independent work (IWS) with an active advice of the teacher.

Content, volume and structure of discipline «Neurosurgery»

Thematic plan of lectures

1. Trauma of the nervous system. Traumatic brain and spinal cord injuries.
2. Tumors and vessels of the nervous system.

Thematic plan of practical classes

1. Traumatic lesions of the nervous system. Closed and open traumatic brain injury. Traumatic lesions of the nervous system.
2. Spinal cord injury. Traumatic injuries of the peripheral nervous system
3. Brain tumors.
4. Vascular pathology of the brain, accompanied by acute cerebral circulatory disorders of the hemorrhagic type.
5. Vascular pathology of the brain, accompanied by ischemic disorders of cerebral circulation. Pathology of the vessels of the spinal cord.

List of literature:

1. Handbook of Neurosurgery / Greenberg M.S. – Thieme, 2019. – 1784 p. ISBN 9781684201372
2. Нейрохирургия: Учебник / В.И. Цимбалюк, Б. Лузан, И.П. Дмитерко и др .; под ред. Акад. В.И.Цимбалюка. - Винница: Новая книга, 2011. - 304 с. ISBN 978-966382-371-3.
3. Гусев Е.И., Коновалов А.Н., Скворцова В.И. Неврология и Нейрохирургия: Учебник: в 2 т. - Т 2. Нейрохирургия. - М .: ГЭОТАР-Медия, 2015. - 408 с. ISBN 978-5-9704-2902-0.
4. Клиническое руководство по черепно-мозговой травме. Под редакцией Коновалова А.Н., Лихтерамана П.Б., Потапова А.А. В 3х томах. М .: Антидор, 1998. Т1 - 550 с.
5. Луцик А.А., Рерих В.В., Бондаренко Г.Ю.Позвоночно- спинномозговая травма. Учебное пособие. Новокузнецк, 2011.- 84 с.
6. Хирургия аневризм головного мозга. Под ред. В.В. Крылова. В трех томах. Том I. М., 2011.- 432 с. - ISBN 978-5-94982-050- 6
7. Нейрохирургия. Европейское руководство в 2-х томах. Христианто Б. Лумента, Кончезио Ди Россо, Йенс Хаас, Ян Якоб А. Мозй. Издательство Панфилова, «Бином», 2013. - 752 с. ISBN: 978-5-91839-034-4
8. Atlas of emergency neurosurgery / [edited by] Jamie Ullman, P.B. Raksin. - 2015. - 528 p. Includes bibliographical references and index. ISBN 978-1-60406-368-4 - ISBN 978-1-60406-369-1.
9. Методы обследования неврологического больного: учеб. Пособие. / Л.И. Соколова, Т.М. Черенко, Т.И. Илляш и др .; под ред. Л.И. Соколовой, Т.И. Илляш. - М .: ВСВ «Медицина», 2015. - 144 с.
10. Atlas of emergency neurosurgery / [edited by] Jamie Ullman, P.B. Raksin. – 2015. - 528 p. Includes bibliographical references and index. ISBN 978-1-60406-368-4 — ISBN 978-1-60406-369-1.
11. Методи обстеження неврологічного хворого: навч. Посіб. / Л.І. Соколова, Т.М. Черенко, Т.І. Ілляш та ін.; за ред. Л.І. Соколової, Т.І. Ілляш. – К.: ВСВ «Медицина», 2015. – 144 с.
12. Handbook of neurosurgery / Mark S. Greenberg. Eighth edition. / New York : Thieme Medical Publishers, Inc. ISBN 9781626232426 (e-book) 2016.

Differential Test.

Upon completion of the study of the discipline is a differential test. Only those students who have no academic debt and have an average score of at least 3.00 for their current academic activity are allowed to take the final attestation. Differential credit is assessed on a 4-point (traditional) scale.

Evaluation of discipline

The assessment of the discipline consists of two components:

- 50% - current performance (arithmetic mean of all student grades);
- 50% score on the differential test.

Thus, the department puts two assessments in the statement:

1). the arithmetic mean of all current estimates (calculated as a number rounded to 2 (two) decimal places, for example, 4.76);

2). traditional assessment for differential credit.

The average score for the discipline (traditional grade) is calculated as the arithmetic mean of the current performance and grades on the differential test.

COURSE POLICIES

Deadline and cross plating. All missed classes should be spent. Lectures are worked out by writing abstracts on the topic of the class. Practical classes are worked out in accordance with the schedule of consultations.

Students have the right to transfer current unsatisfactory ratings in order to achieve the average current score of 3.00.

Policy for academic integrity: unacceptable writing, student must fluent material.

Policies for visiting classes and delay: student should not miss lecture and practical classes, about the absence of valid reasons, it is necessary to inform the dean's office, which issues permits to work out missed, delayed not desirable.

Mobile devices: Invalid use of a mobile phone, tablet or other mobile devices during class (except in cases provided for by the curriculum and methodological recommendations of the teacher).

Behavior in the audience: creative, business, benevolent atmosphere.