Course description

General information about the course	
1. Major of study: medicine	**2. Study level:** unified MSc
	3. Form of study: intramural
4. Year: VI	**5. Semester: XII**
6. Course name: Neurosurgery – Elective	
7. Course status: required	

8. Course contents and assigned learning outcomes

Neurosurgery course encompasses the diagnosis, assessment and surgical management of disorders of the nervous system. During the course, the students will receive knowledge how to do a pertinent history and exam, formulate a differential diagnosis and plan of evaluation. The students will also have opportunity to understand and management of pre and post-operative problems. During course most important neurosurgical procedures will be presented and explained.

The course will deal with main fields of neurosurgery – oncology, vascular and trauma but also focus on latest achievements in microsurgical techniques, non-invasive imaging, image-guided surgery, and sophisticated radio-oncological and interventional treatments.

Learning outcomes / reference to learning outcomes indicated in the standards

For knowledge – student knows and understands:

F.W3- Principles of qualification and performing of basic surgical and invasive diagnostic and therapeutic procedures

F.W4 - Most common complications of above-mentioned procedures

F.W5 - Principles of safety and periperative preparation, anesthesia (general, local) and sedation

F.W6 - Knows indications for intensive therapy and principles of intensive therapy

F.W10 - Principles of current imaging modalities, including: radiologic symptomatology of most common diseases; instrumental methods and imaging techniques used in therapeutic purposes; indications, contraindications and preparation of patients to different methods of imaging studies; contraindications to use of radiologic contrast media

F.W13 - Knows causes, symptoms, principles of diagnosis and therapeutic procedure in the most common central nervous system diseases: brain edema and its consequences; other forms of intracranial high pressure with their consequences; craniocerebral trauma; vascular leasions of the central nervous system; tumors of the central nervous system; diseases of the spine and spinal cord

F.W15 Principles of suspecting and diagnosing brain death

For skills student can do:

E.U1 - takes medical history from the patient;

E.U3 - performs complete and targeted physical examination of the patient;

E.U7 - assesses the general condition, consciousness and awareness of the patient

E.U13 - assesses and describes the somatic and mental patients` state

E.U14 - recognizes the direct life-threatening states

F.U1 - Assisting to a typical surgical procedure, preparation of operative field and local anesthesia of operated area

F.U2 - Using basic surgical instruments

F.U3 - Implementing methods of asepsis and antisepsis

F.U4 - Dressing a simple wound according to asepsis and antisepsis principles

F.U21- assess the condition of the unconscious patient according to international scales

F.U22 - recognize the symptoms of increasing intracranial pressure

For social competencies student is ready to:

K1 - respects the medical confidentiality and patient rights

K2 - can establish and maintain a deep and respectful contact with the patient

K3 - directs the good of the patient, putting it in first place

K4 - is aware of own limitations and has the ability to lifelong learning

9. Number of hours for the course	30
10. Number of ECTS points for the course	1,5

11. Methods of verification and evaluation of learning outcomes		
Learning outcomes	Methods of verification	Methods of evaluation*
Knowledge K_F.W3 K_F.W4 K_F.W5 K_F.W6 K_F.W10 K_F.W13 K_F.W15	Written evaluation – open questions	*

Skills K_E.U1 K_E.U3 K_E.U7 K_E.U13 K_E.U14 K_F.U1 K_F.U2 K_F.U3 K_F.U4 K_F.U21 K_F.U22	Report Observation Practical exam	*
Competencies K_K1 K_K2 K_K3 K_K4	Observation	*

* The following evaluation system has been assumed:

Very good (5,0) – the assumed learning outcomes have been achieved and significantly exceed the required level
Better than good (4,5) – the assumed learning outcomes have been achieved and slightly exceed the required level
Good (4,0) – the assumed learning outcomes have been achieved at the required level
Better than satisfactory (3,5) – the assumed learning outcomes have been achieved at the average required level
Satisfactory (3,0) – the assumed learning outcomes have been achieved at the minimum required level
Unsatisfactory (2,0) – the assumed learning outcomes have not been achieved