

NEUROSURGERY	
GENERAL INFORMATION	
Course coordinator	Professor Krešimir Rotim, MD, PhD
Assistant/Associate	Assoc. Prof. Ivan Hećimović, MD, PhD Asst. Prof. Božidar Muršić, MD, PhD Asst. Prof. Dario Mužević, MD, PhD Nenad Koruga, MD, PhD Miroslav Gjurašin, MD, PhD Tomislav Sajko, MD, PhD
Study Programme	Integrated undergraduate and graduate university study of Medicine
Status of the course	Mandatory
Year of study, semester	4 th year, 8 th semester
ECTS	1
Workload (hours)	Lectures (5); Seminars (8); Exercises (8)
Expected number of students	70
COURSE DESCRIPTION	
Course objectives	
The course should train the student to diagnose, treat and provide early rehabilitation to patients with neurosurgical diseases and injuries and/or damage to central nervous system functions as part of primary healthcare. Students should be trained in particular to take timely measures in neurosurgical emergencies and familiarized with modern options in neurosurgery (functional neurosurgery, radiosurgery, pain surgery).	
Enrolment requirements and entry competencies	
The student has attended and completed all the previous year's courses.	
Learning outcomes at the Programme level	
1.1., 1.2., 2.1., 2.2., 2.3., 3.1., 3.2., 3.3., 3.4., 3.5., 4.2.	
Learning outcomes (5-10)	
<ol style="list-style-type: none"> 1. Define, describe and differentiate between the most common neurosurgical entities 2. Demonstrate the ability to take a medical history and perform a clinical examination in patients with the most common neurosurgical disorders 3. Assess changes in the state of consciousness and suggest further diagnostic and therapeutic procedures 4. Identify and describe the symptomatology of spinal cord injuries 5. Describe the most common central nervous system tumors 	
Course content	
<p>Introduction to neurosurgery. History of neurosurgery. Diagnostic procedures in neurosurgery (medical history, clinical neurological examination, EMG, EEG, CT, MRI, LM). Principles of neurosurgical treatment (trephination, craniotomy, pain management).</p> <p>Spatio-compressive intracranial processes – pathophysiology of the intracranial space (ICP, types of pinched nerves and signs). Intracranial tumors – neuro-oncology.</p> <p>Hydrocephalus in children and adults – CSF circulation. Differential diagnosis of neurosurgical diseases. Pediatric neurosurgery. Cerebrovascular surgery.</p> <p>Craniocerebral injuries – neurotraumatology. Intracranial hematomas. Brain concussion – crushing – compression. Glasgow coma scale score (GCS score). Diseases and injuries of the spine and spinal</p>	

cord. Disco–radicular conflict C 5, 6, 7, 8/ L2, 3, 4, 5, S1. Prognosis and rehabilitation of neurosurgical patients.

Mode of teaching

Lectures; Seminars; Exercises

Student obligations

Students are expected to attend all class sessions, as well as to take all the examinations. However, they are allowed for excused absences, totalling 30% of all classes.

Monitoring student work (*alignment of learning outcomes, teaching methods, and grading*)

Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Grade points	
					Min.	Max.
Attendance (lectures and seminars)	0.25	1–5	Class attendance	Records	5	20
Exercises	0.25	1–5	Attendance and active participation in exercises	Exercise log	15	30
Final exam	0.5	1–5	Studying for the final exam	Oral exam	30	50
Total	1				50	100

Valuation of the final exam:

Student's answer	Grade points
The answer meets the minimum criteria	30.0
Average answer with notable mistakes	37.0
Very good answer with minor mistakes	44.0
Exceptional answer	50.0

Calculation of final grade:

Points achieved in class are combined with points achieved on the oral exam. The grading shall be carried out by using absolute distribution, i.e. shall be based on the final achievement and compared to the numerical system as follows:

A – excellent (5): 80-100 points ; B – very good (4): 70-79.99 points; C – good (3): 60-69.99 points; D – sufficient (2): 50-59.99 points.

Required reading (available in the library and through other media)

Title	Number of copies in the library	Availability through other media
1. Rotim K, Sajko T. Neurokirurgija [Neurosurgery]. Osijek: Faculty Of Medicine, Josip Juraj Strossmayer University of Osijek, 2019		

Additional reading

1. Rotim K et al. Neurotraumatologija [Neurotraumatology]. Zagreb: Medicinska naklada; 2006
2. Rotim K, Sajko T. Neurokirurgija [Neurosurgery]. Zagreb: University of Applied Health Sciences;

2010

3. Sajko T and Rotim K. Neurokirurške posljedice bolesti središnjeg živčanog sustava [Neurosurgical consequences of central nervous system diseases]. Zagreb: Faculty of Education and Rehabilitation Sciences, University of Zagreb, 2019

Course evaluation procedures

Anonymous, quantitative, standardized student survey providing feedback on the course as well as on the work of course coordinators and their assistants/associates is being conducted by the QA Office of the Faculty of medicine Osijek.

Note /Other

E-learning does not count towards course contact hours, but is being used in teaching and comprises links to various web pages, as well as video and audio materials available on web pages.