

**DESCRIPTION OF COURSE UNIT FOR DOCTORAL STUDIES
AT VILNIUS UNIVERSITY**

Scientific Area/eas, Field/ds of Science	Medical and Health Sciences (M 000): Medicine (M 001); Public Health (M 004); Nursing (M 005)			
Faculty, Institute, Department/Clinic	Faculty of Medicine Institute of Clinical Medicine Clinic of Neurology and Neurosurgery			
Course unit title (ECTS credits, hours)	Degenerative Diseases of the Spine 7 credits (189 hours)			
Study method	Lectures	Seminars	Consultations	Self-study
Number of ECTS credits	-	-	1	6
Method of the assessment (in 10 point system)	Examination. Exams are conducted in written and oral forms. Two questions on the topics given in the course unit description are asked by the commission. The doctoral student is given time to prepare a written answer. Answers are given orally. The maximum score for each question is 5 points, the total score is the sum of the scores for both questions, rounded to the nearest whole number. The depth of knowledge of the topic, the application of the latest knowledge, the ability to present and discuss it are assessed.			
PURPOSE OF THE COURSE UNIT				
Acquire basic knowledge of epidemiology, manifestation, diagnostics, conservative and surgical treatment, prognosis of degenerative diseases of the spine.				
THE MAIN TOPICS OF COURSE UNIT				
Anatomy and physiology of the spine. Spinal degeneration process. Sagittal balance. Intervertebral disc discosis: causes, manifestation, diagnostics. Conservative and surgical treatment methods for intervertebral disc dysfunction. Classification of intervertebral disc herniations. Epidemiology of intervertebral discs herniations. Herniation of the cervical intervertebral disc: manifestation, diagnosis, conservative treatment methods. Herniation of the cervical intervertebral disc: methods of surgical treatment. Herniation of the lumbar intervertebral disc: manifestation, diagnosis, conservative treatment methods. Herniation of the lumbar intervertebral disc: methods of surgical treatment. Cauda equina compression syndrome. Degenerative spinal instability: manifestation, diagnostics. Conservative and surgical treatments for degenerative spinal instability. Cervical spinal stenosis: manifestation, diagnostics, treatment methods, prognosis. Cervical myelopathy. Lumbar spine stenosis: manifestation, diagnostics, treatment methods. Results of surgical treatment of intervertebral disc herniations, rehabilitation of patients, prognosis, expertise of working capacity. Anterior and posterior spinal fixation, indications for these surgeries, surgical technique. Degenerative spinal diseases in children.				
RECOMMENDED LITERATURE SOURCES				
<ol style="list-style-type: none"> 1. Winn H. (ed). Youmans and Winn Neurological Surgery. 8th edition. Elsevier, 2022 2. Boos N, Aebi M (ed): Spinal disorders. Fundamentals of diagnosis and treatment. Springer, 2008. 3. Quinones-Hinojosa A (ed.). Schmidek&Sweet operative neurosurgical techniques: indications, methods, and results. 7th edition. Elsevier. 2021. 4. Budrys V (red.). Klinikinė neurologija. 2as leidimas. Vaistų žinios. 2009. 5. Greenberg MS (ed). Handbook of neurosurgery, 9th edition. Thieme. New York. 2019. 				

6. Rhee JM, Boden SD, Flynn JM, Wiesel SW, (ed): Operative techniques in spine surgery. Lippincott Williams&Wilkins, Wolters Kluwer, 2013
7. Bridwell KH (ed). Bridwell and DeWald's Textbook of Spinal Surgery 4th Edition. Wolters Kluwer. 2020.
8. Manfrè L (ed). The Disc and Degenerative Disc Disease. Remove or Regenerate? Springer. 2020.
9. Kim DH (ed). Spinal instrumentation. Challenges and Solutions. 2nd edition. Thieme. 2017
10. Shen FH (ed). Textbook of cervical spine. Elsevier Saunders. 2015

CONSULTING LECTURERS

1. Coordinating lecturer: Gunaras Terbetas (Assist. Prof. Dr.).

2. Robertas Kvaščevičius (Assist. Prof. Dr.).

3. Saulius Ročka (Prof. Dr.).

APPROVED:

By Council of Doctoral School of Medicine and Health Sciences at Vilnius University:
29th of September 2022

Chairperson of the Board: Prof. Janina Tutkuvienė