

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

Scientific Area/eas, Field/ds of Science	Medical and Health Science (M 000): Medicine (M 001)			
Faculty, Institute, Department/Clinic	Faculty of Medicine, Institute of clinical medicine, Clinic of Rheumatology, Orthopaedics Traumatology and Reconstructive Surgery			
Course unit title (ECTS credits, hours)	Basics of Hand Surgery 8 credits (212 hours)			
Study method	Lectures	Seminars	Consultations	Self-study
Number of ECTS credits	-	-	1	7
Method of the assessment (in 10 point system)	Exam. Oral examination. 3 questions.			
PURPOSE OF THE COURSE UNIT				
<p>To provide deeper knowledge about anatomical and functional features of the hand, principles of clinical and instrumental examination of the patient, basic principles of hand surgery, hand injury, treatment strategy, principles of surgical treatment of bone, tendon, and nerve damage, principles of hand replantology. Hand diseases, their surgical treatment strategy, methods, and principles. Rehabilitation after hand surgical treatment.</p>				
THE MAIN TOPICS OF THE COURSE UNIT				
<p>Surgical anatomy of the hand: skeleton, tendons, blood circulation, and innervation. Functional (dynamic) hand anatomy. Principles of hand pathology diagnostics: clinical examination of the patient, instrumental examination methods. Evaluation of sensory and motor nerve functions. Diagnosis of tendon damage. Anesthesia in hand surgery: local, wired, general. Atraumatic surgical technique. Microsurgical method. Tools. Hand injuries and their consequences. Fractures, dislocations. Principles of osteosynthesis. Arthrodesis. Endoprosthesis. Tendon surgery. Peculiarities of the anatomy of finger extensor and flexor tendons. Verdan zones. Principles of tendon operations: tendography, tendoplasty, tenolysis, tenodesis, transposition, tenotomy. Tendon sutures: types. Tendoplasty. Microsurgical technique in hand vascular and nerve surgery. Vascular suture: performance technique, types of anastomoses, autovenoplasty. Degrees of nerve damage. Types of nerve sutures. Nerve plastic. Determinants of regeneration. Principles of hand immobilization. Postoperative care and monitoring. Staged reconstruction of hand structures. Rehabilitation. Replantation. Classification of amputations by amputated segment, amputation method and damaging factor. Indications for replanting. Individual determination of them. Factors determining the indication: patient-related, trauma, and other factors. Replantation technique. Postoperative follow-up. Reoperation after replantations: early due to complications, late - reconstructive. Dupuytren's contracture. Normal anatomy of the ligaments of the hand. Forms of the disease: nodules, fibers, involved skin, finger contractures. Etiopathogenesis. Causes, predisposing factors, and influence of injuries. Prevalence, course, and stages of the disease.</p>				
RECOMMENDED LITERATURE SOURCES				
<p>1. Scandinavian Plastic Surgery. Kuokkanen H, Holstrom H, Abyholm FE, Drzewiecki KT Narayana Press 2008. 2. Skandinavijos plastinė ir rekonstrukcinė chirurgija Kuokkanen H, Holstrom H, Abyholm FE, Drzewiecki KT. Vilniaus universiteto leidykla 2016.</p>				

3. Riešo kanalo sindromas. Metodinė priemonė. M.Minderis. Vilniaus universiteto leidykla, 2005.
4. Surgical Anatomy of the Hand. Schmidt HM, Lanz U. Thieme 2004.
5. Atlas of Hand Surgery. Pechlaner S, Kerschbaumer F, and Hussl H. Thieme 2000.
6. Plastic Surgery. Mathes SJ, Hentz VR. 2nd Editon. 8 volumes with the website. Saunders 2005.
7. Green's Operative Hand Surgery. 8th edition. Elsevier 2021.
8. Operative Techniques: Hand and Wrist Surgery. K. Chung. Elsevier. 2021.
9. Beasley's Surgery of the Hand. Beasley RW. Thieme 2003.
10. Perforator Flaps Anatomy, Technique, & Clinical Applications. Phillip N. Blondeel, MD, PhD, Steven F. Morris, MD, MSc, Geoffrey G. Hallock, MD. Quality Medical Publishing, Inc. 2013.
11. The Wrist: Diagnosis and Operative Treatment. Cooney WP. 2nd edition. Lippincott Williams & Wilkins 2010.
12. Essentials of Hand Surgery. Seiler JG. Lippincott Williams & Wilkins 2001.
13. Campbell's operative orthopedics. 14th ed. St. Louis, Washington D.C., Toronto: Elsevier. 2020.
14. Reconstructive Surgery of the Hand and Upper Extremity. Germann, Levin, Sherman. Thieme. 2017
15. Replantation and Reconstruction of Fingers. Cheng G, Cui Y, and Tang L. People's Medical Publishing House; 1 edition 2009.

CONSULTING LECTURERS

1. Coordinating lecturer: Vytautas Tutkus (Assoc. Prof. Dr.).
2. Nerijus Jakutis (Assist. Prof. Dr.).
3. Giedrė Stundžaitė-Baršauskienė (Assist. 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