

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

Scientific Area/-eas, Field/ds of Science	Medicine and Health Sciences (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)	Oncosurgery of Breast 8 credits (216 hours)			
Study method	Lectures	Seminars	Consultations	Self-study
Number of ECTS credits	-	-	2	6
Method of the assessment (In 10-point system)	Exam. Oral examination. 3 questions.			
PURPOSE OF THE COURSE UNIT				
<p>To provide a deeper knowledge of Breast Cancer, etiology, epidemiology and diagnostics principles of Breast Cancer. To provide precise knowledge about complexity of Breast Cancer treatment, different methods and importance of multidisciplinary team role in decision making in Breast Oncology. To improve knowledge in oncological Breast Surgery, indications for different types of Surgery, contraindications, possible complications after surgery and how to solve them.</p>				
THE MAIN TOPICS OF COURSE UNIT				
<p>Breast anatomy and physiology. Development of the Breast. Breast Cancer: incidence worldwide and in Lithuania, current trends in epidemiology of Breast Cancer. Etiology and Risk factors for Breast Cancer. Histological types of Breast Cancer, features and clinical course of different Breast Cancer histological types. TNM staging of Breast Cancer. Clinical symptoms of Breast Cancer. Radiological diagnostics of Breast Cancer: Mammography, Breast tomosynthesis, BI-RADS system. Breast ultrasound: BI-RADS system. Different types of Breast biopsies: fine needle biopsy, core needle biopsy. Ultrasound-guided breast biopsy. Stereotactic Breast biopsy. Breast MRI. Indications, contraindications, advantages and disadvantages of MRI. Second-look ultrasound after breast MRI. Correlation of radiological investigations. Genetical testing of Breast Cancer. Hereditary Breast cancer. BRCA1, BRCA2, Check2, Palb mutations. Prophylactic mastectomy, types of prophylactic mastectomies (skin-sparing SSM, nipple-sparing NSM), incisions, planning of surgery. Mastopexy before prophylactic mastectomy. Treatment of Breast Cancer. Multidisciplinary team role in Breast Cancer treatment. Chemotherapy. Indications. Neoadjuvant and adjuvant, chemotherapy, palliative chemotherapy. Main schemes, agents. Side-effects and their correction. Biological therapy. Hormonal therapy. Indications, drugs, side effects and duration. Radiotherapy. Indications, fields, dozes, planning. Complications and side-effects after radiotherapy and their correction. Breast Surgery after Radiotherapy. Residual effects after radiotherapy. Influence of radiotherapy for results of Breast Reconstruction. Surgery of Breast cancer. Stage 0 Breast cancer surgery. Breast conserving surgery: lumpectomies, tumorectomies, quadrantectomies.</p>				

Oncoplastic Breast Surgery: most popular types of surgery, used techniques.
 Minimal extent surgery of Breast Cancer: indications and principles.
 Surgery of recurrent Breast Cancer.
 Palliative mastectomies. Indications, principles, axillary procedures, postoperative care.
 Types of mastectomies: modified mastectomy, simple mastectomy, skin-sparing and nipple-sparing mastectomy: indications, risks, complications, postoperative care.
 Immediate and delayed Breast Reconstruction. Most popular methods and techniques: indications, limitations, possible complications.
 Axillary procedures: indications, techniques and limitations. Sentinel node biopsy. Technics of identification of Sentinel Node. Axillary dissection: indications, techniques, postoperative care, complications and rehabilitation.
 Reading of Histological report.
 Rehabilitation after Breast Cancer Surgery.
 Psychological needs of Breast Cancer patients. Advises for patient consultation and communication, psychological support. Patients 'societies, groups and information sources.

RECOMMENDED LITERATURE SOURCES

1. Research Highlights from the 2021 San Antonio Breast Cancer Symposium, <https://www.univadis.com/conferences/sabcs-2021-afc60931-a3c6-4e60-82f5-1c0052e3fc12>.
2. Breast Cancer Screening and Diagnosis, 2021, version 1. https://www.nccn.org/professionals/physician_gls/pdf/breast-screening.pdf
3. Breast Cancer treatment NCCN guidelines, 2022, version 2. https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf
4. Burstein HJ, Curigliano G, Thürlimann B, Weber WP, Poortmans P, Regan M, Senn HJ, Winer EP, Gnant M, Panelists of the St Gallen Consensus Conference. Customizing local and systemic therapies for women with early breast cancer: the St. Gallen International Consensus Guidelines for treatment of early breast cancer 2021. Collaborators, Affiliations expand. *Ann Oncol* 2021 Oct;32(10):1216-1235. doi: 10.1016/j.annonc.2021.06.023. Epub 2021 Jul 6. PMID: 34242744 DOI: 10.1016/j.annonc.2021.06.023
5. Cardoso F, Kyriakides S, Ohno S, Penault-Llorca F, Poortmans P, Rubio IT, Zackrisson S, Senkus E, on behalf of the ESMO Guidelines Committee*. Early breast cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up†*Annals of Oncology* 30: 1194–1220, 2019. doi:10.1093/annonc/mdz17.
6. Wyld L., Markopoulos C, Leidenius M., Senkus-Konefka E. *Breast Cancer Management for Surgeons. A European Multidisciplinary Textbook*. 2018. Springer International Publishing AG 2018. ISBN 978-3-319-56673-3.
7. Rezai M, Kocdor MA, Canturk Z. *Breast Cancer Essentials. Perspectives for Surgeons*. Springer Nature Switzerland 2021. ISBN 978-3-030-73147-2.
8. Thomssen C, Balic M, Harbeck N, Gnant M. St. Gallen/Vienna 2021: A Brief Summary of the Consensus Discussion on Customizing Therapies for Women with Early Breast Cancer. *Breast Care* 2021;16:135–143. DOI: 10.1159/000516114.
9. Jeong Hyun Ha, Ki Yong Hong, Han-Byoel Lee, Hyeong-Gon Moon, Wonshik Han, Dong-Young Noh, Joonho Lim, Sehoon Yoon, Hak Chang & Ung Sik Jin. Oncologic outcomes after immediate breast reconstruction following mastectomy: comparison of implant and flap using propensity score matching. *BMC Cancer* 20: 78; 2020.
10. Steven J. Kronowitz, John R. Benson, Maurizio B. Nava *Oncoplastic and Reconstructive Management of the Breast, Third Edition*. 2020. ISBN 9781498740715. Wyld L., Markopoulos C, Leidenius M., Senkus-Konefka E. *Breast Cancer Management for Surgeons. A European Multidisciplinary Textbook*. 2018. Springer International Publishing AG 2018. ISBN 978-3-319-56673-3.

CONSULTING LECTURERS
1. <u>Coordinating lecturer</u> : Nerijus Jakutis (Assist. Prof. Dr.).
2. Giedrė Stundžaitė-Baršauskienė (Assist. Prof. Dr.).
3. Vytautas Tutkus (Assoc. Prof. Dr.).
APPROVED:
By Council of Doctoral School of Medicine and Health Sciences at Vilnius University: 29 th of September 2022
Chairperson of the Board: Prof. Janina Tutkuvienė