

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

<b>Scientific Area/eas, Field/ds of Science</b>	Medical and Health Science (M 000): Medicine (M 001)			
<b>Faculty, Institute, Department/Clinic</b>	Faculty of Medicine, Institute of Clinical Medicine, Clinic of Rheumatology, Orthopaedics Traumatology and Reconstructive Surgery			
<b>Course unit title</b> (ECTS credits, hours)	<b>Reconstructive Breast Surgery</b> 8 credits (216 hours)			
<b>Study method</b>	<b>Lectures</b>	<b>Seminars</b>	<b>Consultations</b>	<b>Self-study</b>
Number of ECTS credits	-	-	2	6
<b>Method of the assessment</b> (in 10 point system)	Exam. Oral examination. 3 questions.			
<b>PURPOSE OF THE COURSE UNIT</b>				
<p>To provide a deeper knowledge of breast reconstruction, purpose, historical facts, principle of staging in breast reconstruction; be familiar with the main methods of reconstruction; advantages and disadvantages, indications, contraindications, criteria for choosing the optimal strategy of the reconstruction; typical complications, ways of prevention and management. To be familiar with up-to-date tendencies in reconstructive breast surgery.</p>				
<b>THE MAIN TOPICS OF COURSE UNIT</b>				
<p>Anatomy and physiology of breasts. Vascularity, lymphatics, innervation. Development and history of breast reconstructive surgery. The patient after mastectomy : psychological and social aspects. Breast reconstruction: immediate and delayed; pros and cons. The strategy of multistage in breast reconstruction. Breast symmetrization surgery: surgery of the opposite healthy breast -reduction, mastopexy, augmentation with implant or lipofilling; surgery of the reconstructed breast – flap reduction, augmentation with implant or lipofilling. The reconstruction of the nipple-areola complex: in one stage, in two stages, areola tattoo. The main methods of reconstruction are implant-based, autologous, and combined. Implant-based reconstruction. Implant types. How to choose the right implant for the patient. Reconstruction in one (DTI – direct-to-implant) and two stages (expander, tissue expansion, and permanent implant). Complications, prevention, management of complications. Implant-associated ALCL: epidemiology, diagnostics, treatment.</p> <p>Autologous reconstruction. Flaps. Pedicled flaps: pTDL, pTDAP: anatomy, raising the flap, areas of application, complications: prevention, management.</p> <p>Free flaps. The most popular applications: TRAM, MS TRAM and DIEP flaps. Anatomy, the technique of flap raising, preop- identification, and marking of perforators. Recipients vessels. Modeling of the new breast. Complications, prevention, management.</p> <p>Alternative free flaps: from the gluteal donor area - sGAP, iGAP; thigh donor area – TUG (TMG), PAP flap. Peculiarities in the application.</p> <p>Lipofilling: historical review, techniques, principles, areas of application, results, complications.</p> <p>Risk reducing mastectomies, indications, surgical technique, the main patterns (SSM, NSM). Immediate reconstruction in risk reduction surgery.</p>				

### RECOMMENDED LITERATURE SOURCES

1. Hall-Findlay E.J., Evans G.R.D., ed. Aesthetic and reconstructive surgery of the breast. Saunders Elsevier, 2010.
2. Ph. Blondeel et al. Perforator flaps: anatomy, technique & clinical applications. 2nd edition. Quality medical publishing, Inc., 2013.
3. Neligan P., ed. in chief. Plastic surgery, vol.5 (Breast). 3rd edition. Elsevier Saunders, 2013.
4. Tanna N, Broer P.N., Weichman K., Alperovich M., Ahn Y.C., Allen R.J., Sr., Choi M., Karp S.N., Saadeh P.B., Levine Jamie P. Microsurgical breast reconstruction for nipple-sparing mastectomy. Plastic&reconstructive surgery. 2013;131(2):139e-147e.
5. Platt J., Baxter N., Zhong T. Breast reconstruction after mastectomy for breast cancer. CMAJ, 2011; 183(18):2109-2116. CMAJ 2011. DOI:10.1503/cmaj.110513.
6. Katznel E.B., Bucky L.P. Fat grafting to the breast: clinical applications and outcomes for reconstructive surgery. Plastic&reconstructive surgery. 2017;140(5s):69s-76s.
7. Galanis C., Nguyen P., Koh J., Roostaeian J., Festekian J., Crisera Ch. Plastic&reconstructive surgery. 2014;134(1):20-27. DOI: 10.1097/PRS.0000000000000271.
8. Knox A.D.C., Ho A.I, Tashakkor A.Y., Lennox P.A, Laeken N.V., Macadam S.A. Comparison of outcomes following autologous breast reconstruction using the DIEP and pedicled TRAM flaps: a 12-year clinical retrospective study and literature review. Plastic&reconstructive surgery. 2016;138(16):16-28. DOI: 10.1097/PRS.0000000000001747.
9. Wei FC, Mardini S Flaps and Reconstructive Surgery. Saunders, 2009.
10. Kuokkanen H, Holmstrom H, Abyholm FE, Drzewiecki KT. Skandinavijos plastinė ir rekonstrukcinė chirurgija. Vilniaus universiteto leidykla, 2016.
11. Sigurdson L., Lalonde D.H. MOC-PS CME article: Breast reconstruction. Plastic&reconstructive surgery. 2008;121(1):1-12.

### CONSULTING LECTURERS

1. Coordinating lecturer: 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<sup>th</sup> of September 2022

Chairperson of the Board: Prof. Janina Tutkuvienė