Appendix No.3
to Resolution No. 2303
of Senate of Wroclaw Medical University
of 28 April 2021

Syllabus for academic year: 2021/2022 Training cycle: 2016/2017 – 2021/2022			
Description of the course:			
Course	Surgery (3)	Group of detailed education results Group code F	Group name clinical surgical studies
Faculty	Faculty of Medicine		
Major	medicine		
Level of studies	X uniform magister studies ¶ 1st degree studies ¶ 2nd degree studies ¶ 3rd degree studies ¶ postgraduate studies		
Form of studies	X full-time ¶ part-time		
Year of studies	VI	Semester 11 and 12	X winter X summer
Type of course	X obligatory ¶ limited choice ¶ free choice / elective		
Language of study	¶ Polish X English		

Number of hours Form of education	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Foreign language Course (FLC)	Physical Education (PE)	Vocational Practice (VP)	Directed Self-Study (DSS)	E-learning (EL)
Winter semester:													
Department of Vascular, General and Transplantation Surgery													
Direct (contact) education[1]			6		34								

1 Education conducted with direct participation of university teachers or other academics

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Distance learning[2]													
Department of Thoracic Surgery													
Direct (contact) education			6		12								
Distance learning													
Department of Cardiac Surgery and Heart Transplantation													
Direct (contact) education			6		16								
Distance learning													
Department of Neurosurgery													
Direct (contact) education			4		8								
Distance learning													
Winter semester - total			22		70								
Summer semester:													
Department of Vascular, General and Transplantation Surgery													
Direct (contact) education			4		8								
Distance learning													
Department of Thoracic Surgery													
Direct (contact) education			2		4								
Distance learning													
Department of Cardiac Surgery and Heart Transplantation													
Direct (contact) education			2		8								
Distance learning													
Summer semester - total			8		20								
TOTAL per year:													
Department of Vascular, General and Transplantation Surgery													
Direct (contact) education			10		42								
Distance learning													
Department of Thoracic Surgery													

2 Education with applied methods and techniques for distance learning

Direct (contact) education			8		16								
Distance learning													
Department of Cardiac Surgery and Heart Transplantation													
Direct (contact) education			8		24								
Distance learning													
Department of Neurosurgery													
Direct (contact) education			4		8								
Distance learning													

C1. To get students acquainted with the knowledge of symptomatology of the main surgical diseases of cardio-vascular surgery, thoracic surgery and neurosurgery as well as to consolidate the knowledge of symptomatology of general abdominal surgery
C2. To get students acquainted with the modern diagnostic methods of cardio-vascular surgery, thoracic surgery and neurosurgery as well as to consolidate the knowledge in diagnostics in the field of surgical diseases of abdominal cavity
C3. To get students acquainted with the principles of treatment of acute and chronic diseases that require vascular, cardiosurgical, thoracosurgical and neurosurgical intervention, as well as to consolidate the knowledge regarding the management of the most common general surgical disorders, as well as acquiring practical skills that will allow to perform basic life-saving manoeuvres and procedures in these surgical disciplines (including consolidation of skills in wound suturing and surgical tying)
C4. To consolidate the knowledge of principles of patient safe preparing to the surgical procedures as well as the principles of postoperative care (including aseptic and antiseptic rules and techniques, perioperative antibiotic prophylaxis, preparation of the surgical site and anticoagulation prophylaxis)
C5. Acquiring the ability of history taking and physical examination of patients with surgical diseases of the vessels, heart, chest and nervous system, taking into account the need for medical confidentiality
C6. Development social competences needed to practice the medical profession, in accordance with graduate's profile.

Education result for course in relation to verification methods of the intended education result and the type of class:

Number of detailed education result	Student who completes the course knows/is able to	Methods of verification of intended education results	Form of didactic class **enter the abbreviation*
F.W1	Student knows and understands the causes, symptoms, diagnostic and therapeutic procedures of most common conditions that require surgical intervention, taking into account the distinctiveness of childhood, in particular of acute and chronic surgical diseases of abdominal cavity, thoracic disorders, limb and head diseases, bone fractures as well as organ injuries	oral answer	AC, CC
F.W3	Student knows the indications, principles of performing and most common complications of main surgical operations as well as of invasive diagnostic and other therapeutic procedures	oral answer	AC, CC

F.W4	Student knows the principles of perioperative safety and the rules of patient preparation for surgery, general and local anesthesia and controlled sedation	oral answer	CC
F.W10	Student knows the problems of modern diagnostic imaging, in particular the radiological symptomatology of principal diseases, instrumental methods and imaging techniques used for medical procedures, indications, contraindications and preparation of the patient for particular types of imaging tests and contraindications to the use of contrast agents	oral answer	AC, CC
E.U38	Student is able to fill patient's medical records	practical skills test	CC
F.U1	Student assists in a typical surgical procedure, prepares an operating field and applies local anesthesia	practical skills test / demonstration during surgery	CC
F.U2	Student uses basic surgical instruments	practical skills test / demonstration using surgical instruments	CC
F.U3	Student applies to the principles of asepsis and antisepsis	practical skills test / demonstration in a patient's room or in operating theatre	CC
F.U4	Student manage with simple surgical wound and knows the wound dressing procedures	practical skills test / demonstration at patient's bedside	CC
F.U6	Student examines breasts, lymph nodes, thyroid gland and abdomen for the acute abdomen signs, as well as performs digital rectal examination	practical skills test / demonstration at patient's bedside	CC
F.U9	Student is able to deal with external bleeding	practical skills test / demonstration at patient's bedside	CC
F.U12	Student monitors the patient's condition in the postoperative period based on basic hemodynamic parameters and vital sign assessment	practical skills test / demonstration at patient's bedside	CC

* L- lecture; SE- seminar; AC- auditorium classes; MC- major classes (non-clinical); CC- clinical classes; LC- laboratory classes; CSC- classes in simulated conditions; PCP- practical classes with patient; FLC- foreign language course; PE- physical education; VP- vocational practice; DSS- directed self-study; EL- E-learning

Student's amount of work (balance of ECTS points):

Student's workload (class participation, activity, preparation, etc.)	Student Workload
1. Number of hours of direct contact:	120
2. Number of hours of distance learning:	-
3. Number of hours of student's own work:	93,6
4. Number of hours of directed self-study	n/a
Total student's workload	213,6
ECTS points for course	8

Content of classes: (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)

Lectures - not applicable

Seminars

Department of Vascular, General and Transplantation Surgery:

Winter Semester

1. Diseases of arteries: atherosclerotic peripheral artery disease, carotid artery atherosclerosis, abdominal aortic aneurysms and peripheral arterial aneurysms, chronic mesenteric ischemia. Modern vascular diagnostics. Elective procedures in vascular surgery: open vascular surgery and endovascular surgery. 2 hours.

2. Diseases of venous system: varicose vein disease of legs, thrombophlebitis of superficial and deep veins of lower limbs, postthrombotic syndrome, pulmonary embolia. 1 hour.

3. Transplant surgery: surgical aspects of organ donation and transplantation, transplant coordination, selected legal and organizational aspects of donation and organ transplantation in Poland. 1 hour.

4. Liver surgery: benign and malignant liver tumors, liver injuries. 1 hour.

5. Acute abdominal diseases – consolidation of knowledge part 1: limited and diffuse peritonitis, appendicitis, Bowel obstruction, obstructed hernias, diverticulitis, intestinal fistulas, intraperitoneal abscess. 1 hour.

Summer Semester

1. Vascular surgical emergencies: acute limb ischemia, ruptured aortic aneurysm, acute mesenteric ischemia, blood vessel injuries, artery pseudoaneurysm, aortic dissection. 2 hours.

2. Acute abdominal diseases – consolidation of knowledge part 2: complications of gallstones, acute

pancreatitis, peptic ulcer perforation, bleeding from alimentary tract. 2 hours.

Department of Neurosurgery:

Winter Semester

1. Vascular diseases of the brain and spinal cord. Brain tumors. Hydrocephalus. 2 hours.

2. Cranio-encephalic trauma. Vertebral injuries and spinal cord injuries. Osteoarthritis of the spine. 2 hours.

Department of Thoracic Surgery:

Winter Semester

1. Surgical treatment of the lung cancer: diagnosis, indications, contraindications, preparation of a patient to thoracotomy, complications and treatment. Role of surgery in combined treatment of a lung cancer. Minimally invasive treatment of chest malignancies. 2 hours.

2. Mediastinal diseases (pneumomediastinum, mediastinitis, neoplasms and cysts - symptoms, invasive diagnostic procedures, surgical indications). Role of surgery in pleural diseases (pneumothorax, mesothelioma) surgical indications, pleural drainage, role of surgery in treatment of thoracic infections (tuberculosis, pyothorax, mycoses) diagnosis, indications to surgical treatment, complications, treatment results. 2 hours.

3. Methods of invasive diagnostic procedures in thoracic diseases (bronchoscopy, US guided transbronchial and transesophageal biopsy, peristernal mediastinostomy, mediastinoscopy, video-thoracoscopy VATS, diagnostic thoracotomy), interventional bronchoscopy. 1 hour.

4. Principles of performing of major thoracic surgery procedures. 1 hour.

Summer Semester

1. Role of surgery in treatment of thoracic malformations, as well as infectious diseases of the chest, including the consequences of Covid-19. 1 hour.

2. Thoracic trauma (life-threatening conditions – basic life saving procedures, indications for mechanical ventilation). The most common thoracic surgery problems in GP practice. 1 hour.

Department of Cardiac Surgery and Heart Transplantation:

1. Extracorporeal circulation – principles, practical aspects. Mechanical cardiac support. 2 hours.

2. The coronary artery disease – pathophysiology, modern diagnostic methods. Surgical coronary revascularization – CABG. 2 hours.

3. Minimally invasive surgery – OPCAB, MIDCAB, TECAB. Myocardial infarction complications requiring

surgical approach. 2 hours.

Summer Semester

1. Valvular heart disease - aortic and mitral valve disorders Heart neoplasms. 1 hour.

2. Ascending aortic aneurysms. Selected congenital hearts defects. Heart transplantation. Cardiac and great vessel injuries. 1 hour.

Practical classes

The topics of practical classes are taught in each of the 4 surgical departments continuously in both semesters, depending on present cases and opportunities, in particular in relation to the topics of the seminars.
In addition, during exercises, emphasis is placed on:

1. Participating in everyday work of a surgical ward

2. Participating in a work of an Outpatient Surgical Clinic, including outpatient surgical procedures

3. Participating in qualifying patients for elective and emergency surgical operations

4. Taking history and physical examination of patients, paying attention to the elements important for the safety of patient that will undergo surgical procedure. Technique of physical examination in typical surgical disorders

5. Assisting in filing of patient's medical records

6. Practicing surgical sutures, technique of surgical knot tying – manual and with use of surgical instruments

7. Assisting at changing of wound dressings

8. Assisting at bedside procedures

Participation in the preparation of the patient for surgery: informed consent and judicial consent

9. Participation in the preparation of the patient for surgery: informed consent and judicial consent, sharing of personal health information, qualification by a surgeon and anesthesiologist, perioperative medication management

10. Participation in the preparation of the surgeon for surgery: principles of asepsis, surgical scrubbing, gowning and gloving, preparing an operating field

11. Participating in surgical procedures of general, vascular, cardiothoracic surgery and neurosurgery

12. Repetition of the knowledge from previous years of Surgery: preparing to the final exam

Other - not applicable

Basic literature (list according to importance, no more than 3 items)
1. Principles and Practice of Surgery, O.J. Garden et al., Churchill Livingstone Elsevier, 2017
2. National medical series for independent study (NMS) Surgery, B.E. Jarrell, Lippincott Williams & Wilkins 2015
3. Oxford Handbook of Clinical Surgery, G.R. McLatchie, Oxford Medical Publications 2013
Additional literature and other materials (no more than 3 items)

1. Crash Course: Surgery, A. Kontoyannis, Mosby 2008
2. Surgery - Basic Science and Clinical Evidence. J. Norton, P.S. Barie et al., Springer, New York 2008
3. Thoracic surgery. F.G. Pearson, Edinburgh: Churchill Livingstone 2002

Preliminary conditions: (minimum requirements to be met by the student before starting the course)
Credit for the Surgery (2)
Theoretical preparation before classes, having basic knowledge in accordance with the topic of classes.

Conditions to receive credit for the course: (specify the form and conditions of receiving credit for classes included in the course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)

Each absence must be made up, including rector's days or dean's hours (in this case, a presentation or essay prepared by the student is allowed). Credit for is based on attendance at classes and final test (written or oral, with the possibility of practical part at patient's bedside (history taking, physical examination, establishing of diagnostic and therapeutic procedures). Active participation in classes required.

The student knows, understands and explains more than 90% of the discussed theoretical problems. The student takes history and performs physical examination of the given patient, documents it correctly in writing, proposes a probable diagnosis and tests needed to establish it, suggests the adequate method of surgical treatment and explains the main idea of the operation

Form of assessment: grade from the test summarizing the third year of the course in Surgery. A test consisting of 30 questions (15 for vascular surgery, transplant surgery and liver surgery, 5 for cardiac surgery, 5 for thoracic surgery, and 5 for neurosurgery).

Successful completion of the Surgery (3) course is a precondition for taking the final examination in Surgery.

Grade:	Criteria for courses ending with a grade[3]
Very Good (5.0)	28-30 correct answers
Good Above (4.5)	26-27 correct answers
Good (4.0)	22-25 correct answers
Satisfactory Plus (3.5)	19-21 correct answers
Satisfactory (3.0)	16-18 correct answers
	Criteria for courses ending with a credit[3]
Credit	not applicable

Grade:	Criteria for exam[3]
Very Good (5.0)	93-100 pkt
Good Above (4.5)	87-92 pkt
Good (4.0)	81-86 pkt
Satisfactory Plus (3.5)	74-80 pkt

3 The verification must cover all education results, which are realize in all form of classes within the course

Satisfactory (3.0)	65-73 pkt

Department in charge of the course:	Department of Vascular, General and Transplantation Surgery
Department address:	213 Borowska Str., 50-556 Wrocław
Telephone:	71 733 20 03
E-Mail:	magdalena.emilianowicz@umw.edu.pl
Department in charge of the course:	Department of Thoracic Surgery
Department address:	105 Grabiszyńska Str., 54-439 Wrocław
Telephone:	71 334 94 75
E-Mail:	adam.rzechonek@umw.edu.pl
Department in charge of the course:	Department of Cardiac Surgery and Heart Transplantation
Department address:	213 Borowska Str., 50-556 Wrocław
Telephone:	71 736 41 00
E-Mail:	edyta.bozemska@umw.edu.pl
Department in charge of the course:	Department of Neurosurgery
Department address:	213 Borowska Str., 50-556 Wrocław
Telephone:	71 734 34 00
E-Mail:	

Person in charge for the course:	prof. dr hab. Dariusz Janczak
Telephone:	71 733 20 03
E-Mail:	dariusz.janczak@umw.edu.pl

List of persons conducting specific classes:

Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Department of Vascular, General and Transplantation Surgery:				

Dariusz Janczak	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Jan Skóra	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Dariusz Patrzałek	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Maciej Malinowski	MD, PhD	Medical sciences	surgeon	CC, AC
Tomasz Dawiskiba	MD, PhD	Medical sciences	surgeon	CC, AC
Wojciech Sekula	MD	Medical sciences	surgeon	CC, AC
Tadeusz Dorobisz	MD, PhD	Medical sciences	surgeon	CC, AC
Marcin Rychter	MD	Medical sciences	surgeon	CC, AC
Agnieszka Lepiesza	MD	Medical sciences	surgeon	CC, AC
Maciej Antkiewicz	MD	Medical sciences	surgeon	CC, AC
Mateusz Szponder	MD	Medical sciences	surgeon	CC, AC
Agata Krach	MD	Medical sciences	surgeon	CC, AC
Monika Matyjaszczyk	MD	Medical sciences	surgeon	CC, AC
Department of Neurosurgery:				
Paweł Tabakow	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Włodzimierz Jarmundowicz	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Wojciech Lesław Zub	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Paweł Weiser	MD, PhD	Medical sciences	surgeon	CC, AC
Rafał Załuski	MD, PhD	Medical sciences	surgeon	CC, AC
Wojciech Fortuna	MD, PhD	Medical sciences	surgeon	CC, AC
Krzysztof Chmielak	MD	Medical sciences	surgeon	CC, AC
Przemysław Błaucia	MD	Medical sciences	surgeon	CC, AC
Department of Thoracic Surgery:				
Vladio Bobek	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Adam Rzechonek	MD, PhD	Medical sciences	surgeon	CC, AC
Marek Marciniak	MD, PhD	Medical sciences	surgeon	CC, AC
Maciej Majchrzak	MD	Medical sciences	surgeon	CC, AC
Piotr Błasiak	MD, PhD	Medical sciences	surgeon	CC, AC
Department of Cardiac Surgery and Heart Transplantation:				

Roman Przybylski	MD, PhD	Medical sciences	surgeon	CC, AC
Marek Jasiński	MD, PhD, Professor	Medical sciences	surgeon	CC, AC
Tomasz Hrapkowicz	MD, PhD	Medical sciences	surgeon	CC, AC
Rafał Nowicki	MD, PhD	Medical sciences	surgeon	CC, AC
Jacek Jakubaszko	MD, PhD	Medical sciences	surgeon	CC, AC
Maciej Rachwalik	MD, PhD	Medical sciences	surgeon	CC, AC
Grzegorz Bielicki	MD	Medical sciences	surgeon	CC, AC
Maciej Bochenek	MD	Medical sciences	surgeon	CC, AC
Mikołaj Berezowski	MD	Medical sciences	surgeon	CC, AC
Kinga Kosiorowska	MD	Medical sciences	surgeon	CC, AC

Date of Syllabus development

30.09.2021

Syllabus developed by
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