Appendix 5
to Resolution No. 15630
of Senate of Wroclaw Medical University
of 30 March 2016

Syllabus 2019/2020

Description of the course

Module/Course	Surgery (3)	**Group of detailed education results**	
		Group code F	**Group name** clinical surgical studies
Faculty	Medicine		
Major	medicine		
Specialties	Not applicable		
Level of studies	Uniform magister studies X 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		
Course	☐ major X basic		
Language of instruction	☐ Polish X English ☐ other		

* mark ☐ with an X

Number of hours

Form of education

Unit teaching the course	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)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
Winter Semester														
Department of Vascular, General and Transplantation Surgery			6		34									
Department of Thoracic Surgery			6		12									
Department of Cardiac Surgery			6		16									
Department of Neurosurgery			4		8									

Winter Semester-total			22		70									
Summer Semester														
Department of Vascular, General and Transplantation Surgery			4		8									
Department of Thoracic Surgery			2		4									
Department of Cardiac Surgery			2		8									
Summer Semester-total			8		20									
TOTAL per year:														
120			30		90									

Educational objectives (max. 6 items)

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
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. To make students familiar with adequate behavior within the operating theatre and consolidation of skills in wound suturing and surgical tying
C6. To make students familiar with the medical record documentation standards in surgery ward

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

Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class ***enter the abbreviation*
K 01	F.W1	Student knows and understands the causes, symptoms, diagnostic and therapeutic procedures of most common conditions that require surgical intervention, in particular of acute and chronic surgical	oral answer	AC, CC

		diseases of abdominal cavity, thoracic disorders, limb and head diseases as well as organ injuries.		
K 02	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
K 03	F.W4	Student knows the principles of perioperative safety and the rules of patient preparation for surgery	oral answer	CC
K 04	F.W5	Student knows the postoperative treatment rules with analgesic therapy and post-operative monitoring	oral answer	CC
K 05	F.W10	Student knows the problems of modern diagnostic imaging, in particular instrumental methods and imaging techniques used for therapeutic procedures	oral answer	AC, CC
K 06	F.W13	Student knows and understands the causes, symptoms, principles of diagnosis and therapeutic treatment in the case of the most common diseases of the central nervous system	oral answer	AC, CC
K 07	F.W14	Student knows in the basis of transplantation surgery, indications for transplantation of irreversibly damaged organs and tissues, and procedures related to this	oral answer	AC, CC
S 01	F.U1	Student assists in a typical surgical procedure, prepares an operating field and applies local anesthesia	practical skills test / demonstration during surgery	CC
S 02	F.U2	Student uses basic surgical instruments	practical skills test / demonstration using surgical instruments	CC
S 03	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
S 04	F.U4	Student knows how to manage with simple surgical wound and	practical skills test / demonstration at	CC

		knows the wound dressing procedures	patient's bedside	
S 05	F.U6	Student knows how to examine the patient for the acute abdomen	practical skills test / demonstration at patient's bedside	CC
S 06	F.U9	Student knows how to deal with external bleeding	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; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning.

Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes:
Knowledge: 5
Skills: 5
Social competences: 5

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

Student's workload (class participation, activity, preparation, etc.)	**Student Workload (h)**
1. Contact hours:	120
2. Student's own work (self-study):	93,6
Total student's workload	213,6
ECTS points for module/course	6,5
Comments	

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

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

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

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

Summer Semester

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

2. Acute abdominal diseases – consolidation of knowledge part 2: complications of gallstones, acute pancreatitis, peptic ulcer perforation, bleeding from alimentary tract.

Department of Neurosurgery:

Winter Semester

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

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

Department and Clinic 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.

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.

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.

4. Principles of performing of major thoracic surgery procedures.

Summer Semester

1. Role of surgery in treatment of thoracic malformations.

2. Thoracic trauma (life-threatening conditions – basic life saving procedures, indications for mechanical ventilation).

Department and Clinic of Cardiac Surgery:

Winter Semester

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

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

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

Summer Semester

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

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

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

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

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
2. National medical series for independent study (NMS) Surgery, B.E. Jarrell, III R.A. Carabasi, Lippincott Williams & Wilkins
3. Oxford Handbook of Clinical Surgery, G.R. McLatchie, Oxford Medical Publications.

Additional literature and other materials (no more than 3 items)

1. Surgery – Crash Course, D. Horton-Szar, H. Sweetland, Mosby
2. Surgery - Basic Science and Clinical Evidence. J. Norton, P.S. Barie et al., Springer, New York
3. Thoracic surgery. F.G.Pearson, Edinburgh: Churchill Livingstone

Didactic resources requirements (e.g. laboratory, multimedia projector, other…)
Access to patient rooms, operating theatre, treatment rooms, outpatient surgical clinic and ultrasound room; surgical tools for practice, PC/notebooks and multimedia projector.

Preliminary conditions (minimum requirements to be met by the student before starting the module/course)
Credit for previous two years of the course of Surgery.

Conditions to receive credit for the course (specify the form, criteria and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be med 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).

Grade:	Criteria for course
Very Good (5.0)	The student knows, understands and fully explains the pathomechanisms, diagnostics and treatment of all discussed diseases, including all surgical aspects. The student takes history and performs physical examination of the given patient, documents it completely correctly in writing, proposes the right diagnosis and tests needed to establish it, discuses the differential diagnosis, suggests the adequate method of surgical treatment and discusses the main principles of the operation.
Good Plus (4.5)	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.
Good (4.0)	The student knows, understands and explains more than 75% 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.
Satisfactory Plus (3.5)	The student knows, understands and explains more than 60% of the discussed theoretical problems. The student takes history and performs physical examination of the given patient, documents it in writing in an acceptable way, proposes a probable diagnosis and tests needed to establish it, and suggests a method of surgical treatment within generally accepted principles.
Satisfactory (3.0)	The student knows, understands and explains more than 50% of the discussed theoretical problems. The student takes history and performs physical examination of the given patient, documents it in writing in an acceptable way, proposes a probable diagnosis, and suggests a method of surgical treatment within generally accepted principles.

Grade:	**Criteria for exam** Three-part exam: written (test), oral and practical part.
Very Good (5.0)	The student knows, understands and fully explains the pathomechanisms, diagnostics and treatment of all discussed diseases, including all surgical aspects. The student takes history and performs physical examination of the given patient, documents it completely correctly in writing, proposes the right diagnosis and tests needed to establish it, discuses the differential diagnosis, suggests the adequate method of surgical treatment and discusses the main principles of the operation.
Good Plus (4.5)	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.
Good (4.0)	The student knows, understands and explains more than 75% 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.
Satisfactory Plus (3.5)	The student knows, understands and explains more than 60% of the discussed theoretical problems. The student takes history and performs physical examination of the given patient, documents it in writing in an acceptable way, proposes a probable diagnosis and tests needed to establish it, and suggests a method of surgical treatment within generally accepted principles.
Satisfactory (3.0)	The student knows, understands and explains more than 50% of the discussed theoretical problems. The student takes history and performs physical examination of the given patient, documents it in writing in an acceptable way, proposes a probable diagnosis, and suggests a method of surgical treatment within generally accepted principles.

Name of unit teaching course:	**Department of Vascular, General and Transplantation Surgery**
Address	213 Borowska 213 Str., 50-556 Wrocław

Phone	71 733 20 03
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Person responsible for course:	**Prof. dr hab. Dariusz Janczak**
Phone	71 733 20 03
E-mail	dariusz.janczak@umed.wroc.pl

List of persons conducting specific classes:	*degree/scientific or professional title*	*Discipline*	*Performer profession*	*Form of classes*
Department of Vascular, General and Transplantation Surgery:				
Dariusz Janczak	MD, PhD, Professor	general surgery vascular surgery transplantation	surgeon	CK, CA
Jan Skóra	MD, PhD, Professor	general surgery vascular surgery	surgeon	CK, CA
Maciej Malinowski	MD	general surgery vascular surgery	surgeon	CK, CA
Piotr Barć	MD, PhD	general surgery vascular surgery transplantation	surgeon	CK, CA
Tomasz Dawiskiba	MD, PhD	general surgery vascular surgery transplantation	surgeon	CK, CA
Wojciech Sekula	MD	general surgery vascular surgery	surgeon	CK, CA
Marcin Merenda	MD	general surgery vascular surgery	surgeon	CK, CA
Krzysztof Jacyna	MD	general surgery vascular surgery	surgeon	CK, CA
Tadeusz Dorobisz	MD, PhD	general surgery vascular surgery	surgeon	CK, CA
Aleksandra Milnerowicz	MD	general surgery vascular surgery	surgeon	CK, CA
Agnieszka Lepiesza	MD	general surgery vascular surgery transplantation	surgeon	CK, CA
Marcin Rychter	MD	general surgery vascular surgery transplantation	surgeon	CK, CA
Łukasz Pałka	MD	general surgery vascular surgery	surgeon	CK, CA
Michał Leśniak	MD	general surgery vascular surgery	surgeon	CK, CA
Maciej Antkiewicz	MD	general surgery vascular surgery	surgeon	CK, CA
Agnieszka Ziomek	MD	general surgery vascular surgery	surgeon	CK, CA
Mateusz Szponder	MD	general surgery vascular surgery	surgeon	CK, CA
Katarzyna Frączkowska	MD	general surgery vascular surgery	surgeon	CK, CA

Katarzyna Kulikowska	MD	general surgery vascular surgery	surgeon	CK, CA
Monika Matyjaszczyk	MD	general surgery vascular surgery	surgeon	CK, CA
Department of Neurosurgery:				
Paweł Tabakow	prof. dr hab.	neurosurgery	surgeon	CK, CA
Włodzimierz Jarmundowicz	prof. dr hab.	neurosurgery	surgeon	CK, CA
Wojciech Lesław Zub	prof. dr hab.	neurosurgery	surgeon	CK, CA
Paweł Weiser	dr	neurosurgery	surgeon	CK, CA
Rafał Załuski	dr	neurosurgery	surgeon	CK, CA
Wojciech Fortuna	dr.	neurosurgery	surgeon	CK, CA
Krzysztof Chmielak	lek.	neurosurgery	surgeon	CK, CA
Przemysław Błauciak	lek.	neurosurgery	surgeon	CK, CA
Department and Clinic of Thoracic Surgery:				
Adam Rzechonek	dr	thoracic surgery	surgeon	CK, CA
Marek Marciniak	dr	thoracic surgery	surgeon	CK, CA
Konrad Pawełczyk	dr	thoracic surgery	surgeon	CK, CA
Piotr Błasiak	dr	thoracic surgery	surgeon	CK, CA
Maciej Majchrzak	lek.	thoracic surgery	surgeon	CK, CA
Department and Clinic of Cardiac Surgery:				
Marek Jasiński	prof. dr hab.	cardiac surgery	surgeon	CK, CA
Andrzej Dumański	dr	cardiac surgery	surgeon	CK, CA
Anna Goździk	dr	cardiology	surgeon	CK, CA
Rafał Nowicki	dr	cardiac surgery	surgeon	CK, CA
Jacek Jakubaszko	dr	cardiac surgery	surgeon	CK, CA
Maciej Rachwalik	dr	cardiac surgery	surgeon	CK, CA
Tomasz Płonek	dr	cardiac surgery	surgeon	CK, CA
Mikołaj Berezowski	lek.	cardiac surgery	surgeon	CK, CA

Date of Syllabus development

29.07.2019

Syllabus developed by

prof. dr hab. Dariusz Janczak

dr n. med. Tomasz Dawiskiba

Signature of Head of teaching unit

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Signature of Faculty Dean

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