

**CLASSES ON SURGERY**  
**FOREIGN STUDENTS OF GENERAL MEDICINE 6-YEAR**  
 (12 semester 2023–2024 academic year)

Beginning of semester – 02.01.24      End of semester 06.05.24

<b>Group</b>	<b>Date</b>	<b>Teacher</b>	<b>Hours</b>
3	02.01-05.01	prof. V.I. Kolomiytsev	24
	08.01-16.01	assoc. prof. O.M. Chemerys	42
4	16.02-22.02; 01.03-11.03	prof. V.I. Kolomiytsev	72
	12.03-19.03	as. Ja. Pavlovskyy	36
6	12.01-31.01	prof. V.I. Kolomiytsev	81
	01.02-21.02	as. Ja. Pavlovskyy	43

**Training Center** – as. Ja. Pavlovskyy – **4 gr.; 6 gr.** (35год)

**CLASSES ON ELECTIVE COURSE**

**“Basics of Transplantation”**

<b>Group</b>	<b>Date</b>	<b>Teacher</b>
4	13.02-17.02	assoc. prof. O.M. Chemerys
5	28.03-04.04	as. V.N. Marina
7	02.01-03.01	assoc. prof. V.V. Khomyak

Hours - 36

Протокол засідання кафедри хірургії № 1 від 02.01.24р. № 10

Chairman of Department of Surgery №1

prof. O.V. Lukavetskyy

## TOPICS OF CLASSES

### Surgery for 6<sup>th</sup> year students of General Medicine (*surgery*) (12<sup>th</sup> semester 2023-2024)

№	Topic	Hours
1.	History of surgery in Ukraine. Organization of surgical care in Ukraine. Ethics and deontology in surgery. New technologies in surgery. Modern methods of diagnosis and treatment. Principles of transplantology; clinical manifestations of decompensation of the function of vital organs in need of transplantation.	5
2.	Sepsis in surgical patients. Systemic inflammatory response syndrome. Pathogenesis, importance in various diseases and injuries, principles of diagnosis and treatment. Guidelines to antibiotic prophylaxis and treatment of surgical infection.	5
3.	Shock in surgical patients. Causes, diagnosis, treatment tactics. Principles of transfusiology. Bleeding and blood loss. Classification. Clinical picture of bleeding and acute blood loss. Methods for determining the amount of blood loss. Means to stop bleeding. Blood transfusion and infusion of blood substitutes.	5
4.	Critical condition in surgical patients: a syndrome of multiple organ failure, acute respiratory distress syndrome, acute cardiovascular insufficiency, acute renal failure, acute liver failure. Acute respiratory disease COVID-19: Etiology, clinical manifestation, diagnosis, treatment, prevention.	5
5.	Purulent diseases of skin and soft tissue. Mastitis. Classification, diagnosis, differential diagnosis. Methods of conservative and surgical treatment. AIDS in a surgical clinic: features of examination and surgical care for patients. Prevention of intraoperative trauma and infection transmission to surgeons.	5
6.	Features of the clinical course of surgical diseases in pregnant and elderly. Diagnostics and differential diagnostics of acute diseases of the abdominal organs, peculiarities of examination, surgical tactics, prevention of premature deliveries.	6
7.	Modern surgical trauma during accidents, emergencies and combat, principles of evacuation. Classification and clinical picture of injury. Pathomorphology of wound healing. Treatment of gunshot wounds. Primary and secondary wound debridement.	6
8.	Syndromes of dysphagia and vomiting: diagnosis and differential diagnosis. Features of the clinical picture and treatment of diseases and injuries of the esophagus.	6
9.	Acute abdomen: diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of abdominal cavity. Local and diffuse purulent diseases of the abdominal cavity and peritoneum. Aetiology, pathogenesis, clinical picture, diagnosis and treatment.	6
10.	Obstructive jaundice: causes, differential-diagnostic tactics. Functional, instrumental methods in diagnosing diseases of the liver, extrahepatic bile ducts and pancreas. Current approaches to treatment. Liver failure in surgical diseases: treatment and prevention.	6
11.	GI bleeding: causes, diagnosis and differential diagnosis, treatment tactics.	6
12.	Abdominal trauma: symptoms of injury of abdominal and retroperitoneal organs. Instrumental methods of diagnosis. Treatment tactics.	6
13.	Differential diagnosis and treatment of colorectal and pararectal space diseases. Differential diagnosis and treatment of intestinal fistulas.	6
14.	Focal lesions of the liver: clinical manifestations, diagnostic methods, conventional and minimally invasive surgical treatment. Portal hypertension syndrome. Classification, clinic picture, diagnosis, therapeutic tactics.	6
15.	External and internal abdominal hernias: Classification, clinical picture, diagnosis. Principles of surgical treatment.	6

16.	Surgical diseases of lung and pleura. Principles of diagnosis and treatment.	6
17.	Thoracic trauma. Presentation and diagnosis of pneumothorax, hemothorax and chylothorax, therapeutic tactics. Diagnostic program for heart injury. Triad of symptoms of cardiac tamponade, presentation, medical and surgical program for heart injuries.	6
18.	Surgical pathology of the heart and great vessels. Diagnosis and differential diagnosis. Surgical treatment of pathology of coronary arteries and heart valves. Aortic arch syndrome. Clinical manifestation, diagnosis. Surgical treatment.	6
19.	Syndrome of limb ischemia. Causing diseases. Conservative and surgical treatment of occlusive diseases of the arteries of the extremities.	6
20.	Arterial thrombosis and embolism. Classification of acute limb ischemia. Clinical stages of the course. Diagnostic program. Differential diagnosis. Modern therapeutic tactics. Indications and methods of surgical treatment.	6
21.	Abdominal ischemic syndrome.	6
22.	Diseases of the veins. Superior vena cava syndrome. Lower vena cava syndrome. Causes, clinic, diagnosis, differential diagnosis, treatment tactics. Diagnostic and treatment tactics for acute thrombosis of the great veins. Pulmonary embolism. Clinic, diagnosis, treatment, prevention.	
23.	Differential diagnosis and treatment of thyroid and parathyroid glands diseases.	6
24.	Differential diagnosis and treatment of adrenal glands tumours.	6
25.	Practical skills training center	7
26.	Practical skills training center	7
27.	Practical skills training center	7
28.	Practical skills training center	7
29.	Practical skills training center	7

Total: 139+35 = 174 hours

Затверджено на засіданні кафедри 02.01.2024 р. протокол № 10.

Chairman of Department of Surgery №1

prof. O.V. Lukavetskyy

**OUTCLASSES WORK**  
**Surgery for 6<sup>th</sup> year students of Faculty of General Medicine (*surgery*)**  
**(12<sup>th</sup> semester 2023-2024)**

#	Topic	Hours
1.	Preparations for the classes. Training and development of practical skills	48
2.	Self-processing topics not included in the plan of classes: 1. Differential diagnosis of GI bleeding; 2. Functional, instrumental methods in diagnosing diseases of stomach and intestine; 3. Trophic ulcers. Definition of the concept. Etiology, features of the course. Treatment; 4. Exudative and constrictive pericarditis; 5. Surgical complications in patients with infectious diseases. Differential diagnosis between acute surgical and infectious diseases; 6. Differential diagnosis and treatment of mediastinal diseases; 7. Clinical picture, diagnosis, differential diagnosis and treatment of phlegmon of the neck, groin, and subpectoral phlegmon; 8. Anticoagulants and thrombolytic therapy in acute thrombosis. Prophylactic anticoagulant therapy; 9. Differential diagnosis, prevention and treatment of acute gastrointestinal ulcer; 10. Evaluation of the syndrome of pain in the extremities in the diagnosis and differential diagnosis of vascular diseases, lesions of the nervous system and pathology of the musculoskeletal system.	50
3.	Individual independent work of students in one of the themes to choose from: A. Literature review by choice. B. Work in student scientific group. C. Participation in student competitions on surgery. D. Preparing for “pre-krok” control	28

Total: 126 hours

**Затверджено на засіданні кафедри 02.01.2024 р. протокол № 10.**

Chairman of Department of Surgery №1

prof. O.V. Lukavetskyy

**TOPICS OF CLASSES**  
**Surgery for 6<sup>th</sup> year students of General Medicine**  
*(internal medicine; gynecology&obstetrics)*  
**(12<sup>th</sup> semester 2023-2024)**

№	Topic	Hours
	History of surgery in Ukraine. Organization of surgical care in Ukraine. Ethics and deontology in surgery. New technologies in surgery. Modern methods of diagnosis and treatment. Principles of transplantology; clinical manifestations of decompensation of the function of vital organs in need of transplantation.	6
2.	Sepsis in surgical patients. Systemic inflammatory response syndrome. Pathogenesis, importance in various diseases and injuries, principles of diagnosis and treatment. Guidelines to antibiotic prophylaxis and treatment of surgical infection.	6
3.	Critical condition in surgical patients: a syndrome of multiple organ failure, acute respiratory distress syndrome, acute cardiovascular insufficiency, acute renal failure, acute liver failure. Acute respiratory disease COVID-19: Etiology, clinical manifestation, diagnosis, treatment, prevention.	6
4.	Purulent diseases of skin and soft tissue. Mastitis. Classification, diagnosis, differential diagnosis. Methods of conservative and surgical treatment. AIDS in a surgical clinic: features of examination and surgical care for patients. Prevention of intraoperative trauma and infection transmission to surgeons.	6
5.	Features of the clinical course of surgical diseases in pregnant and elderly. Diagnostics and differential diagnostics of acute diseases of the abdominal organs, peculiarities of examination, surgical tactics, prevention of premature deliveries.	6
6.	Syndromes of dysphagia and vomiting: diagnosis and differential diagnosis. Features of the clinical picture and treatment of diseases and injuries of the esophagus.	6
7.	Acute abdomen: diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of abdominal cavity. Local and diffuse purulent diseases of the abdominal cavity and peritoneum. Aetiology, pathogenesis, clinical picture, diagnosis and treatment.	6
8.	Obstructive jaundice: causes, differential-diagnostic tactics. Functional, instrumental methods in diagnosing diseases of the liver, extrahepatic bile ducts and pancreas. Current approaches to treatment. Liver failure in surgical diseases: treatment and prevention.	6
9.	GI bleeding: causes, diagnosis and differential diagnosis, treatment tactics.	6
10.	Abdominal trauma: symptoms of injury of abdominal and retroperitoneal organs. Instrumental methods of diagnosis. Treatment tactics.	6
11.	External and internal abdominal hernias: Classification, clinical picture, diagnosis. Principles of surgical treatment.	6
12.	Surgical diseases of lung and pleura. Principles of diagnosis and treatment.	6
13.	Thoracic trauma. Presentation and diagnosis of pneumothorax, hemothorax and chylothorax, therapeutic tactics. Diagnostic program for heart injury. Triad of symptoms of cardiac tamponade, presentation, medical and surgical program for heart injuries.	6
14.	Surgical pathology of the heart and great vessels. Diagnosis and differential diagnosis. Surgical treatment of pathology of coronary arteries and heart valves. Aortic arch syndrome. Clinical manifestation, diagnosis. Surgical treatment.	6
15.	Syndrome of limb ischemia. Causing diseases. Conservative and surgical treatment of occlusive diseases of the arteries of the extremities. Arterial thrombosis and embolism. Classification of acute limb ischemia. Clinical stages of the course. Diagnostic program. Differential diagnosis. Modern therapeutic tactics. Indications and methods of surgical treatment.	6
16.	Diseases of the veins. Superior vena cava syndrome. Lower vena cava syndrome.	

	Causes, clinic, diagnosis, differential diagnosis, treatment tactics. Diagnostic and treatment tactics for acute thrombosis of the great veins. Pulmonary embolism. Clinic, diagnosis, treatment, prevention.	
17.	Differential diagnosis and treatment of thyroid and parathyroid glands diseases.	6
18.	Differential diagnosis and treatment of adrenal glands tumours.	6
19.	Practical skills training center	7
20.	Practical skills training center	7
21.	Practical skills training center	7
22.	Practical skills training center	7
23.	Practical skills training center	7

Total: 108+35 = 143 hours

Затверджено на засіданні кафедри 02.01.2024 р. протокол № 10.

Chairman of Department of Surgery №1

prof. O.V. Lukavetskyy

**OUTCLASSES WORK**  
**Surgery for 6<sup>th</sup> year students of Faculty of General Medicine (*internal medicine; gynecology&obstetrics* )**  
**(12<sup>th</sup> semester 2023-2024)**

#	Topic	Hours
1.	Preparations for the classes. Training and development of practical skills	36
2.	Self-processing topics not included in the plan of classes: 1. Differential diagnosis of GI bleeding; 2. Functional, instrumental methods in diagnosing diseases of stomach and intestine; 3. Trophic ulcers. Definition of the concept. Etiology, features of the course. Treatment; 4. Exudative and constrictive pericarditis; 5. Surgical complications in patients with infectious diseases. Differential diagnosis between acute surgical and infectious diseases; 6. Differential diagnosis and treatment of mediastinal diseases; 7. Clinical picture, diagnosis, differential diagnosis and treatment of phlegmon of the neck, groin, and subpectoral phlegmon; 8. Anticoagulants and thrombolytic therapy in acute thrombosis. Prophylactic anticoagulant therapy; 9. Differential diagnosis, prevention and treatment of acute gastrointestinal ulcer; 10. Evaluation of the syndrome of pain in the extremities in the diagnosis and differential diagnosis of vascular diseases, lesions of the nervous system and pathology of the musculoskeletal system.	50
3.	Individual independent work of students in one of the themes to choose from: E. Literature review by choice. F. Work in student scientific group. G. Participation in student competitions on surgery. H. Preparing for “pre-krok” control	16

Total: 102 hours

**Затверджено на засіданні кафедри 02.01.2024 р. протокол № 10.**

Chairman of Department of Surgery №1

prof. O.V. Lukavetskyy

## TOPICS OF CLASSES

### Elective course **Basics of Transplantation** 6<sup>th</sup> year students of General Medicine (12<sup>th</sup> semester 2023-2024)

№	Topic	H-s
1.	Organization of transplantation care. Classification of transplantation of organs and tissues. Bioethics in transplantation: ethical, social, legal and religious aspects. Methods of preservation and preparation for the transplantation of organs and tissues. Transplantation immunology. Principles of immunosuppressive therapy. Matching of donor-to-recipient. Rejection syndrome. Graft-vs-host reaction.	6
2.	Renal failure: aetiology, classification, symptoms, diagnosis, treatment. Hemodialysis. Kidney and pancreas transplantation: indications and surgical aspects. Postoperative care of donor and recipient. Complications and prognosis.	6
3.	Acute and chronic liver failure: aetiology, classification, symptoms, diagnosis, treatment. Extracorporeal desintoxication methods. Indication to liver transplantation. Total and partial liver transplantation. Postoperative course and complications.	6
4.	Transplantation of intestine, pancreas and islets of Langerhans. Enteral insufficiency; total parenteral nutrition. Indications to transplantation. Endocrine failure: aetiology, classification, symptoms, diagnosis, treatment. Indication to pancreas transplantation and transplantation of pancreas-kidney complex. Complications.	6
5.	Transplantation of heart, vessels and heart valves. Classification of heart failure; indications for heart transplantation. Methods of transplantation. Prognosis and results of heart transplantation. Postoperative course and complications.	6
6.	Transplantation of lung and cardio-pulmonary complex. Classification of respiratory failure; chronic obstructive pulmonary disease and pulmonary hypertension. Indications to lung and cardio-pulmonary complex transplantation. Methods of transplantation. Prognosis and results.	6

Total: 36 hours

### OUTCLASSES WORK Elective course **Basics of Transplantation** 6<sup>th</sup> year students of General Medicine (12<sup>th</sup> semester 2023-2024)

№	Topic	Hours
1	Preparations for the classes.	36
2	Topics not included in the plan of classes: 1. History of transplantation in Ukraine and abroad; 2. Bioethics in transplantation: ethical, social, legal and religious aspects; 3. Postoperative monitoring of patients; 4. Surgical features of donor organ removal; 5. Infectious complications after organ transplantation: prevention, treatment 6. Rehabilitation, quality of life and social issues after organ transplantation.	18

Total: 54 hours

Затверджено на засіданні кафедри 02.01.2024 р. протокол № 10.

Chairman of Department of Surgery №1

prof. O.V. Lukavetskyy

**SIMULATION EDUCATION ON SURGERY**  
**for 6<sup>th</sup> year students of Faculty of General Medicine**  
**(12<sup>th</sup> semester 2023-2024)**

№	Topic	Hours
1.	1.1. Clinical case on topic: “Arterial thrombosis and embolism”. 1.1.1. Palpation of peripheral vessels. 1.1.2. Modeling a clinical case on a mannequin.	7
	1.2. Palpation of the breast.	
	1.3. Catheterization of the urinary bladder with a flexible Foley catheter.	
	1.4. Nasogastric intubation.	
	1.5. Interactive patient scenario.	
2.	2.1. Clinical case on topic: “Thoracic trauma”. 2.1.1. Modeling a clinical case on a mannequin.	7
	2.2. Pleural puncture.	
	2.3. Pericardial puncture.	
	2.4. Interactive patient scenario.	
3.	3.1. MARCH protocol. M – Massive bleedings: - Applying a tactical tourniquet CAT; - Applying Esmarch tourniquet; - External tamponade of the wound. A – Airways; R – Respiration; C – Circulation; H – Head injury/Hypothermia.	7
	3.2. Cardiopulmonary resuscitation.	
4.	4.1. Principles of triage and evacuation of victims in mass-casualty incidents.	7

	4.2. Transport immobilization. 4.2.1. Transport immobilization of the cervical spine. 4.2.2. Transport immobilization for shoulder and forearm fractures. 4.2.3. Transport immobilization for hip and lower leg fractures.	
	4.3. Determination of blood groups and Rh factor.	
	4.4. Interactive patient scenario.	
5.	5.1. Clinical case live presentation with actor.	7
	5.2. Clinical case live presentation with actor.	
	5.3. Clinical case live presentation with actor.	
	5.4. Clinical case live presentation with actor.	
	5.5. Clinical case live presentation with actor.	
	5.6. Clinical case live presentation with actor.	
	5.7. Clinical case live presentation with actor.	
<b>Total</b>		<b>35</b>

Затверджено на засіданні кафедри 02.01.2024 р. протокол № 10.

Chairman of Department of Surgery №1

prof. O.V. Lukavetskyy