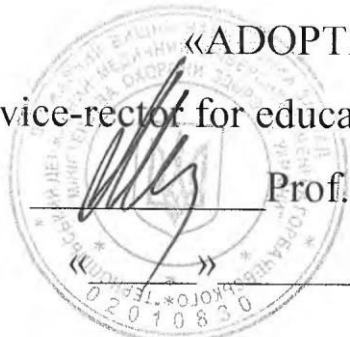


TERNOPIL STATE MEDICAL UNIVERSITY  
after I.YA. GORBACHEVSKY  
Department of Surgery №2

«ADOPTED»  
The vice-rector for educational work  
Prof. A. Shulgay  
2017



***SYLLABUS***  
**FOR SURGERY**  
**For the 6th year students**

Direction of training: 1201 Medicine

Specialty : 7.12010001 “«Medicine»”

Faculty: medical

**Academic Year 2017-2018**

The syllabus is worked out by: prof. I.K. Venger;  
ass. prof. A. Vayda

Adopted on the Department of Surgery №2

“29” June 2017, Protocol № 1

Head of the department of  
Department of Surgery №2

prof. I.K. Venger.

Ternopil –2017

### 1. DESCRIPTION OF THE COURSE

Name of indexes	Discipline Training direction Educational qualification level	Characteristics of the course	
		full-time education	
Credits – 6,5	branch of knowledge medicine	Regulatory (optional)	
	Training direction 1201 Medicine		
Modules – 1	Specialty: 7.12010001 “General Medicine”	Year of preparation	
Content modules – 2		6-th	
Hours total – 150		Semester	
		11, 12.	
Student’s independent study	Educational qualification level: Specialist	Practical, seminars	
		90 h.	
		Laboratory	
		Independent study	
		105 h.	
		Individual tasks:	
		Type of control:	
Current, modular			

**Note.**

The hours ratio of classes to study is (%):

for full-time education-classroom hours – 46,15 %, independent study – 53,85 %.

## **2. PURPOSE AND TASK OF THE SUBJECT:**

**Purpose:** To learn theoretical knowledge of etiology, pathogenesis and practical skills of typical and atypical symptoms of surgical diseases, diagnostic methods, conservative and surgical treatment, rehabilitation of surgical pathology in accordance with the training program of general medicine practice.

### **Task:**

- to teach students to provide timely and quality medical care in the in ambulatory or stationary conditions, implement the principles of family medicine, forming patients form a healthy lifestyle;
- to reveal the practical aspects of studding urgent and routine medical care to various categories of patients.

### **As a result of study of discipline a student should know:**

- etiological and pathogenetic factors of the most spread surgical diseases according to the list OKH 1;
- various clinical variants and complications of the most spread surgical diseases of abdominal cavity;
- diagnostic and treatment algorithm of medical care in emergency cases of surgical diseases;
- indications and contraindications for liver transplantation, pancreas, intestines, kidneys, heart, lungs, limbs replantation;
- indications and contraindications for surgery in an urgent and planned abdominal surgery, postoperative care;

### **As a result of study of discipline a student must be able:**

- identify the most spread clinical symptoms and syndromes of surgical diseases;
- diagnose and provide medical care in emergency cases of surgical diseases;
- demonstrate possession of the moral and deontological principles of medical specialist and principles of professional subordination in surgery;
- interpret the general principles of treatment, rehabilitation and prevention of the most spread surgical diseases;
- to forecast life and ability to work with the most spread surgical diseases;
- determine the main etiological and pathogenetic factors of the most spread surgical diseases;
- classify and analyze a typical clinical picture of the most spread surgical diseases; • develop a plan of examination and analyze information of laboratory and instrumental investigations of the most spread surgical diseases at a typical course; • identify the indications and contraindications for surgery in a planned and urgent abdominal surgery;
- determine an approach of care in postoperative period, appoint necessary treatment;
- demonstrate ability to perform the necessary medical manipulations;

### **3. ACADEMIC DISCIPLINE PROGRAM**

#### **MODULE 3.**

#### **“SYMPTOMS AND SYNDROMES IN SURGERY”**

#### **CONTENT MODULE 5.**

#### **“general surgery questions. current state of bases liver transplantation, pancreas, intestines, kidneys, heart, lungs, limb replantation, transplantation grafts”**

##### **Specific objectives:**

- to identify methods of diagnosis, methods of conservative and surgical treatment of surgical diseases depending on the symptoms and syndromic features of clinical manifestations;
- to grasp differential diagnosis of diseases of the abdominal cavity, retroperitoneal space and chest;
- to interpret the principles of post-operative treatment and rehabilitation of patients with surgical pathology;
- to learn modern methods of diagnosis and treatment, post-operative supervision and rehabilitation of surgical diseases;
- to identify risk factors of complications;
- to interpret results of laboratory and instrumental examinations;
- to demonstrate possession of moral and deontological principles of medical specialist and principles of professional subordination in surgery;
- to know the indications for liver transplantation, pancreas, intestines, kidneys, heart, lungs, limbs replantation, transplantation grafts;
- to forecast life and disability in surgical diseases;
- to interpret the general principles of treatment, rehabilitation and prevention of the most spread surgical diseases;
- to demonstrate ability to conduct medical records at the clinic of surgical diseases;
- to provide emergency medical care for urgent surgical diseases;
- to know the principles of management of patients in need of symptomatic therapy (hospice care).

#### **CONTENT MODULE 6.**

#### **«CLINICAL SIGNS OF SURGICAL DISEASES»**

##### **Specific objectives:**

- to identify methods of diagnosis, methods of conservative and surgical treatment of surgical diseases of the digestive system, cardiovascular and respiratory systems, depending on the symptoms and syndromic features of clinical manifestations;
- to grasp the differential diagnosis of diseases of the abdominal cavity, retroperitoneal space and chest;
- to define the principles of post-operative treatment and rehabilitation of patients with surgical pathology;

- to identify the modern methods of diagnosis and treatment of post-operative supervision and rehabilitation of surgical diseases;
- to learn the risk factors for complications of digestive system diseases of the cardiovascular and respiratory systems;
- to interpret the results of laboratory studies and instrumental examination of digestive system cardiovascular and respiratory systems;
- to demonstrate possession of moral and deontological principles of medical specialist and principles of professional subordination in surgery;
- to forecast life and disability with surgical diseases of the digestive system of the cardiovascular and respiratory systems;
- to interpret the general principles of treatment, rehabilitation and prevention of the most spread surgical diseases of the digestive system cardiovascular and respiratory systems;
- to demonstrate ability to conduct medical records of surgical diseases;
- to provide emergency medical care for urgent diseases of the digestive system, cardiovascular and respiratory systems.

### **STRUCTURE OF THE COURSE**

Names of content modules and topics	number of hours					
	Full-time					
	all	including				
	l	P	lab.	ind	s.	w.
1	2	3	4	5	6	7
<b>MODULE 3. "SYMPTOMS AND SYNDROMES IN SURGERY"</b>						
<b>CONTENT MODULE 5. "GENERAL SURGERY QUESTIONS. CURRENT STATE OF BASES LIVER TRANSPLANTATION, PANCREAS, INTESTINES, KIDNEYS, HEART, LUNGS, LIMB REPLANTATION, TRANSPLANTATION GRAFTS"</b>						
Topic 1. "Diseases of the colon (polyps, diverticulosis, ulcerative colitis, Crohn's disease, chronic coprostasis). Indications for intestinal transplantation."	6		6			
Topic 2. "Non-tumorous diseases of the rectum (hemorrhoids, chronic proctitis, cracks, rectal abscess epithelial coccygeal passages)".	6		6			
Topic 3. "New technologies in surgery. Modern methods of diagnosis and treatment. Indications and contraindications for transplantation of liver, pancreas, lungs, heart."	6		6			
Total for content modules 5	18		18			35

**CONTENT MODULE 6.**  
**«CLINICAL SIGNS OF SURGICAL DISEASES»**

Topic 4. " Syndrome of thyrotoxicosis."	6		6			
Topic 5. "The syndrome of acute abdomen. Diagnosis, differential diagnosis and treatment strategy. The differential diagnosis of acute abdominal diseases."	6		6			
Topic 6. "Syndromes dysphagia, vomiting and defecation disorders. The value in diagnosis and differential diagnosis. Treatment approaches."	6		6			
Topic 7. "Local and spread purulent inflammation of the abdominal organs and peritoneum. The etiology, pathogenesis, clinical features, diagnosis and treatment."	6		6			
Topic 8. "Obstructive jaundice. Causes. Differential diagnostic strategy. Current approaches to treatment. Liver failure in surgical diseases, methods of prevention and treatment."	6		6			
Topic 9. "Bleeding from digestive tract. Causes, diagnosis and differential diagnosis, Treatment approaches."	6		6			
Topic 10. "Trauma of abdomen. Symptoms of damage abdominal cavity and retroperitoneal space. The instrumental methods of diagnosis. Treatment approaches."	6		6			
Topic 11. "Modern methods of diagnosis and treatment of diseases esophagus and diaphragm (achalasia, esophageal diverticulum, hiatal hernia)."	6		6			
Topic 12. "Surgical pathology of the lung and pleura. The principles of diagnosis and treatment. The damage of the chest cavity. Clinic and diagnosis of pneumothorax, haemothorax, and chylothorax. Treatment approaches diagnostic program if damaged heart. The triad of symptoms wounded heart. The clinical diagnostic and surgical program at the wounded heart."	6		6			
Topic 13. "Syndrome limb ischemia. Diseases caused. Conservative and surgical treatment of occlusions lower limbs. Evaluation syndrome pain in the limbs during the diagnosis and differential diagnosis of vascular diseases, nervous system lesions and diseases of the musculoskeletal system.	6		6			
Topic 14. "The problems of thrombosis and embolism. The causes and ways of prevention, diagnosis and differential diagnostics, medical tactic. Modern possibilities of conservative treatment. Indications for surgical treatment and basic techniques."	6		6			
Topic 15. "Venous disease. Superior vena cava syndrome. The syndrome of inferior vena cava. The reasons, diagnostics, differential diagnostics, treatment approaches."	6		6			
Total for content modules 6	72		72			70
Total hours	195					

#### 4. TOPICS OF PRACTICAL CLASSES

№	Study subject	Number of hours
1.	Diseases of the colon (polyps, diverticulosis, ulcerative colitis, Crohn's disease, chronic coprostasis). Indications for intestinal transplantation.	6
2.	Non-tumorous diseases of the rectum (hemorrhoids, chronic paraproctitis, cracks, rectal abscess epithelial coccygeal passages).	6
3.	New technologies in surgery. Modern methods of diagnosis and treatment. Indications and contraindications for transplantation of liver, pancreas, lungs, heart.	6
4.	Syndrome of thyrotoxicosis.	6
5.	The syndrome of acute abdomen. Diagnosis, differential diagnosis and treatment strategy. The differential diagnosis of acute abdominal diseases.	6
6.	Syndromes dysphagia, vomiting and defecation disorders. The value in diagnosis and differential diagnosis. Treatment approaches.	6
7.	Local and spread purulent inflammation of the abdominal organs and peritoneum. The etiology, pathogenesis, clinical features, diagnosis and treatment.	6
8.	Obstructive jaundice. Causes. Differential diagnostic strategy. Current approaches to treatment. Liver failure in surgical diseases, methods of prevention and treatment.	6
9.	Bleeding from digestive tract. Causes, diagnosis and differential diagnosis, Treatment approaches.	6
10.	Trauma of abdomen. Symptoms of damage abdominal cavity and retroperitoneal space. The instrumental methods of diagnosis. Treatment approaches.	6
11.	Modern methods of diagnosis and treatment of diseases esophagus and diaphragm (achalasia, esophageal diverticulum, hiatal hernia).	6
12.	Surgical pathology of the lung and pleura. The principles of diagnosis and treatment. The damage of the chest cavity. Clinic and diagnosis of pneumothorax, haemothorax, and chylothorax. The clinical diagnostic and surgical program at the wounded heart.	6
13.	Syndrome limb ischemia. Diseases caused. Conservative and surgical treatment of occlusions lower limbs. Differential diagnosis of vascular diseases, nervous system lesions and diseases of the musculoskeletal system.	6
14.	The problems of thrombosis and embolism. The causes and ways of prevention, diagnosis and differential diagnostics, medical tactic. Modern possibilities of conservative treatment. Indications for surgical treatment and basic techniques.	6
15.	Venous disease. Superior vena cava syndrome. The	6
	syndrome of inferior vena cava. The reasons, diagnostics, differential diagnostics, treatment approaches.	
	<b>Total hours</b>	<b>90</b>

#### 5. TOPICS OF LECTURES - NONE.

#### 6. TOPICS OF LABORATORY LESSONS – NONE

## 7. INDEPENDENT WORK

### LIST OF THEMES FOR STUDENTS INDIVIDUAL WORK

<b>№</b>	<b>THEME</b>	<b>hours</b>
1.	Basic aspects of transplantation. Immunological aspects in surgery	8
2.	Transfusion therapy	8
3.	Wound infection	8
4.	Basic aspects of chemical and radiation therapy of tumors	8
5.	Antibiotic therapy and prophylaxis of purulent infection in surgery	8
6.	Suppurative lesion of skin and soft tissue	8
7.	Hand surgery. Suppurative diseases of fingers and wrist.	8
8.	Peculiarities of surgical pathology in the elderly patients.	8
9.	Intestinal fistulae.	8
10.	Differential diagnosis of acute surgical pathology and infectious diseases	5
11.	Abdominal ischemic syndrome.	6
12.	Tumors of APUD system.	6
13.	Endovascular surgery.	4
14.	Bronchiectatic disease.	4
15.	Diabetic foot	4
16.	Abdominal aortic aneurysm.	4
	<b>TOTAL :</b>	<b>105</b>



## LIST OF MASTERING OF PRACTICAL SKILLS

№	Practical skills	Level of the skill
1.	Medical curation of patient with nonspecific ulcerous colitis *	4
2.	Medical curation of patient with atherosclerosis of arteries of lower extremities*	4
3.	Medical curation of patient with endarteritis of lower extremities*	4
4.	Medical curation of patient with the abscess of lungs*	4
5.	Medical curation of patient with pleural empyema*	4
6.	Medical curation of patient with pneumothorax*	4
7.	Medical curation of patient with the chest trauma*	4
8.	Medical curation of patient with acute intestinal obstruction*	4
9.	Medical curation of patients with acute pancreatitis*	4
10.	Medical curation of patient with the inflammatory diseases of rectum*	4
11.	Medical curation of patient with peritonitis *	4
12.	Medical curation of patient with pylorostenosis *	4
13.	Medical curation of patient with the gastrointestinal bleeding*	4

\* – the practical skill is submitted in matricule

### 8. INDIVIDUAL LESSONS - NONE

### 9. TEACHING METHODS

According to sources of knowledge, the following teaching methods are used: verbal - story, explanation, lecture, briefing; visual - demonstration, illustration; practical - practical work, tasks.

The nature of the logic of knowledge, the following methods are used: analytical, synthetic, analytical-synthetic, inductive, deductive.

In terms of individual mental activity used methods: problematic, partly retrieval, research.

### 10. METHODS OF CONTROL

#### Forms control and evaluation of discipline

In assessing students' knowledge preferred standardized methods of control: test (oral, written, computer), structured written work, structured monitoring of practical skills.

Evaluation of discipline is defined as the assessment for the module, followed by a structured training course.

Evaluation of module is defined as a sum of the current training and assessment of the final module control and expressed per 200 point system.

#### Forms of control

The current control is performed on each class to suit specific purposes of the topic. In all workshops is used the objective monitoring of theoretical training and learning practical skills.

#### Forms of the current control:

Theoretical knowledge - the tests, computer tests, individual surveys, interviews, written work.

Practical skills and - independent individual tasks and the ability to draw conclusions on their own ability to perform certain transactions, writing schemes and algorithms. Final control is based on theoretical knowledge, practical skills and abilities.

Final control of the module takes place at the end of study unit of the relevant content modules on a test and is considered to be passed if the student scored at least 50 points.

**Forms of final control:**

*Theoretical knowledge* - a system for writing and computer testing.

*Practical skills and abilities* - Use of the basic methods of medical statistics in conducting and evaluating the biomedical research in view of the main provisions of evidence-based medicine; comprehensive assessment of health in relation to social and environmental factors on a defined territory.

## 11. THE DISTRIBUTION OF POINTS THAT STUDENTS RECEIVE

The maximum number of points assigned to students with learning of each module (test credits) - 200, including the current educational activity - 120 points, the results of final module control - 80 points.

Evaluation of current training activities:

Student at each stage of practical sessions (practical part, seminar discussions, written control) is assigned rating for the 12-point scale. Then derived the arithmetic mean of the three estimates, which is exposed to the log.

In the practical part of each phase of the assessment is proposed as follows:

1. The early practical part, students must commit to carrying out practical work (they need to know the progress of the qualitative reactions, analytical effects, etc.). During this stage the student can gain a maximum of 2 points.

2. During the execution of practical work the teacher carefully monitors, at the end he assesses the results. Maximum for this type of work a student can get 4 points.

3. Protection of practical work. At this stage, the student may receive a maximum of 6 points.

At the end of the practical part of the teacher gives the arithmetic mean of the score for each of the classes and exposes it to every student.

Minimum GPA of at which the student is allowed to take final control module - 4 points.

The maximum amount that can be collected by a student during a module is 120 points.

Modular final control: module final control is at the end of the module.

Before final control students who complete all work stipulated curriculum, and in the study module took score not less than the minimum.

The form of the final evaluation should wake standardized and include control of theoretical and practical training. Specific forms of control of endoscopic surgery are determined in the work study program.

The maximum amount of the final control points is 80.

The final module control is passed if the student scored at least 50 points.

Evaluation of the discipline: Evaluation of endoscopic surgery is exposed only to students who have completed all modules in the discipline. The number of points that a student comes into the discipline is defined as the average number of points of the modules of the discipline and final control of the number of modules 1, 2 and 3.

Objectivity of assessment of learning activities of students must be checked by statistical methods (correlation coefficient between the current progress and results of the final module control).

Conversion of scores in the assessment of endoscopic surgery on a scale ECTS and 4-ball (traditional)

The number of points in the discipline, which is credited to the students converted to ECTS scale so:

Rating ECTS	Statistical index
A	Top 10% of students
B	Next 25% of students
C	Next 30% of students
D	Next 25% of students
E	Last 10% of students

Percentage of students is determined on the sample of students of the course within the relevant specialty. The number of points in the discipline, which is credited to the students converted to 4-point scale as follows:

Rating ECTS	Rating on the national scale
A	5
B, C	4
D, E	3
FX, F	2

Evaluation of discipline FX and F («2») is assigned to a student who is not enrolled at least one module in the discipline.

Score FX («2») is assigned to students who score a minimum number of points for the current academic activities, but did not pass the final module control. They have the right to repeat the final module control, not more than 2 times during the winter holidays and for two (additional) weeks after the end of the spring semester according to the schedule approved by the Rector.

Students who receive F after assessment study by discipline is completed (not completed the training program at least one module, or not yet in the current learning activity module the minimum number of points) must undergo re-training for individual curriculum.

Grading scale: national and ECTS

Total points for all the educational activities	ECTS	Evaluation on the national scale	
		for examination, project (work) practices	for credit
	A	excellent	Accepted
	B	good	
	C		
	D	satisfactorily	
	E		
	FX	Not satisfactory with the possibility of re-drafting	Not accepted with the possibility of re-drafting
	F	Not satisfactory with the obligatory re-studying subjects	Not accepted with the obligatory re-studying subjects

### 13. METHODOLOGICAL SUPPORT

1. The preparation materials for lectures.
2. Presentations of lectures.
3. Prepare materials for practical lessons
4. Methodical instructions for practical lessons.
5. Variations for individual tasks and individual work of students.
6. Tests for the final test testing.
7. Tests for daily control.
8. Variations of theoretical questions for self-study.

### 14. LITERATURE

#### Basic:

1. ESC Guidelines on the diagnosis and treatment of peripheral artery, 2014
2. Varicose Veins Full Guideline (July 2013)

3. Prevention and Treatment Of Venous Thromboembolism //International Consensus Statement (Guidelines according to scientific evidence), 2015
4. Pulmonary Embolism Management Guidelines, 2016
5. Management of Pleural Effusion, Empyema, and Lung Abscess, 2013
6. Guidelines for the Diagnosis and Treatment of Spontaneous Pneumothorax, 2016
7. ACG Clinical Guideline: Diagnosis and Management of Achalasia, 2016
8. Hyperthyroidism And Other Causes Of Thyrotoxicosis: Management Guidelines Of The American Thyroid Association And American Association Of Clinical Endocrinologists, 2015
9. ACC/AHA Guidelines for the Management of Patients With Unstable Angina and Non–ST-Segment Elevation Myocardial Infarction, 2016
- 10.WSES Jerusalem Guidelines For Diagnosis And Treatment Of Acute Appendicitis, 2014
- 11.Protocol for Diagnosis and Treatment of Peptic Ulcer in Adults //American International Health Alliance: Clinical Practice Guidelines for General Practitioners, 2016
- 12.Clinical Guideline For The Treatment Of CAPD Peritonitis, 2015
- 13.EASL Clinical Practice Guidelines on the Prevention, Diagnosis and Treatment of Gallstones, 2014
- 14.Practice Guidelines in Acute Pancreatitis, 2014
- 15.European Hernia Society guidelines on the treatment of inguinal hernia in adult patients, 2016
- 16.Practice Parameters for the Management of Hemorrhoids (Guidelines 2010)

**Additional:**

1. L.Ya.Kovalchuck, Yu.P.Spizhenko, V.F.Sayenko and others. “Hospital surgery”. Ternopil: Ukrmendknyga, 1999.
2. M.I.Kuzin “Surgical diseases” – M.:-Medicina,2004.
3. “Facultative Surgery” under the edition of V.O.Shidlovsky – Ternopil: Ukrmedknyga, 2002.
4. Guidelines for intensive care. Ed. A.I. Treschinskogo, F.S. Glumchera K.: High School, 2004.
5. Medical ambulance. For Ed. FS Glumchera, VF K. Moskalenko: "Medicine" - 2006.

6. Eugene Braunwald, Anthony Fauci et al: Harrison's principles of internal medicine. McGraw-Hill. Medical Publishing Division, 15th edition, 2000.
7. Lawrence M. Tierney, Jr. et al: Current Medical Diagnosis and treatment 2000, Lange Medical Books, McGraw-Hill, Health Professions Division, 2000.
8. Christopher R.W. Edwards et al: Davidson's principles and practice of medicine, 17<sup>th</sup>.
9. Gostishchev V.K. General surgery / The manual. – M.: GEOTAR-MED, 2003.
10. Lectures prof. B.I. Dmitriev from Odessa State Medical University.
11. Surgery: Text-book for English medium medical students / S.I. Shevchenko, O.A. Tonkoglas, I.M. Lodyana, R.S. Shevchenko. – Kharkiv: KSMU, 2001.
12. Kushnir R. Ya. General surgery / Lectures.- Ternopil, Ukrmedknyha, 2005.
13. Butyrsky A. General surgery / The manual.- Simpheropol: publishers CGMU, 2004.
14. Oxford handbook of clinical surgery/Edited by G.R. Mc Latchie, D.J. Leaper, 2002.

## **16. Information Resources**

1. [http://intranet.tdmu.edu.ua/data/kafedra/internal/index.php?&path=surgery2/classes\\_stud/en/med/lik/ptn/Surgery/6/](http://intranet.tdmu.edu.ua/data/kafedra/internal/index.php?&path=surgery2/classes_stud/en/med/lik/ptn/Surgery/6/)

**Materials prepare students for practical Sane Materials prepare students for practical training / Department Surgery №2.**