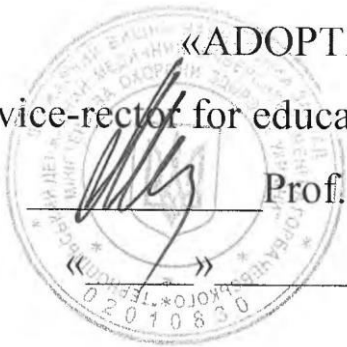


TERNOPIL STATE MEDICAL UNIVERSITY
after I.YA. GORBACHEVSKY
Department of Surgery №2

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



**SYLLABUS
FOR ENDOSCOPIC 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. I.I. Loyko

Adopted on the Department of Surgery №2

“29” June 2017, Protocol № 1

Head of the department
of Surgery №2

prof. I.K. Venger.

Ternopil –2017

1. Academic discipline description

Indexes	Discipline Training direction Educational and qualificational level	Academic discipline characteristics	
Credits – 2,0	Discipline <u>1201 Medicine</u> (code and name)	Full-time study	
	Training direction <u>1201 Medicine</u> (code and name)	Statutory	
Modules – 1	Specialty General Medicine	Academic year	
Semantic modules – 2		6-th	6-th
Hours total – 60		Semester	
		XI-th	XII-th
Student's independent study – 24	Educational and qualificational level: <u>specialist</u>	Lectures	
		-	-
		Practical lessons, seminars	
		12 hrs.	24 hrs.
		Independent study	
		18 hrs.	6 hrs.
Type of control:			
Module test control			

Note.

Ratio of number of hours of classroom training to independent and individual study is (%):
for full-time education - classroom hours - 60%, independent study - 40%

2. AIMS AND OBJECTIVES OF THE DISCIPLINE

Purpose - to improve knowledge on the diagnosis and treatment of various pathological conditions and diseases in surgery, urology, gynecology and traumatology using endoscopic and other minimally invasive technologies.

The ultimate goals are set based on training doctor by specialty, according to the the semantic module, and they are the basis for the construction of academic discipline. Based on the outcome objectives for each module or semantic modules, specific goals are defined as specific skills (actions), goals that achieve the ultimate aim of the discipline.

Tasks

1. Examination of the causes and mechanisms of development, clinical features and the diagnosis of surgical diseases of the abdominal cavity and retroperitoneal space using modern minimally invasive techniques.
2. To learn for proper use surgical instruments, modern surgical equipment and devices of mini-invasive surgery unit.
3. To master the basic techniques of manipulation and execution of surgeries using laparoscopic and other minimally invasive technologies.
4. To consolidate practical skills on general principles and technical equipment of laparoscopic surgery, endoscopic anatomy of the abdominal cavity, technical difficulties, possible complications and their prevention and treatment.

To solve the tasks and enhance the learning process the training course is provided by:

1. Optimal support of the learning process with surgical instruments, visibility means, facilities for virtual endoscopic surgery training.
2. Widespread use in the educational process of various means of visual components (tables, models, slides, themed short educational films, benches, training equipment etc.).
3. Rational organization of individual students study and control over its efficiency, individual students' study in the course of lesson.
4. Broad introduction of experimental operations on simulators and experimental animals to the learning process. These are performed by students under the guidance of a teacher in terms of strict adherence to aseptic and antiseptic norms, adequate anesthesia using modern instruments, surgical equipment and operating equipment.

As a result of study of the discipline the student must

know:

1. The name and purpose of endoscopic instruments and equipment, sequence and rules for their use;
2. Methodology for most common laparoscopic surgeries in various organs and systems;
3. Indications, contraindications and possible complications of laparoscopic surgery methods;

be able to:

1. Achieve the skills of treatment and care of surgical patients to perform the necessary medical procedures;
2. Properly use laparoscopic surgical instruments, surgical devices and modern facilities of the operational unit;
3. Achieve techniques for most common laparoscopic surgeries that are conducted in the studied area and in diseases that are being studied.

3. THE ACADEMIC DISCIPLINE STRUCTURE

The titles of semantic modules and topics	Hours total					
	Full-time study					
	total	includes				
lect		prac t	lab	ind	indep. study	
1	2	3	4	5	6	7
Module 1						
Semantic Module 1: Basics of minimally invasive surgery. Diagnostic laparoscopy. Complications of laparoscopy.						
Theme 1. Types and areas of minimally invasive surgery. Endosurgical devices for interventions.	18		6			12
Theme 2. Technique of endovideosurgical interventions.	12		6			6
Informative module 1 total	30		12			18
Semantic module 2. Laparoscopic treatment of diseases of abdominal cavity and retroperitoneal space. Laparoscopic diagnosis of tumors.						
Theme 3. Laparoscopic diagnosis and treatment of the diseases of the genitourinary system.	8		6			2
Theme 4. Laparoscopic diagnosis and treatment of hepatobiliary zone disorders.	8		6			2
Topic 5. Laparoscopic diagnosis and treatment of hernia and benign tumours of the gastrointestinal tract.	6		6			
Topic 6. Laparoscopic diagnosis and treatment of malignant tumours.	8		6			2
Semantic module 2 total	30		24			6
Individual scientific study - none						
Hours total	60		36			24

4. TOPICS OF LECTURES – NONE

5. TOPIS OF PRACTICAL LESSONS

#	Name of the Topic	Ammount of hours
Module 1. Bases of endoscopic surgery and its directions. Diagnostic laparoscopy. Complications of laparoscopy.		
1.	Types and areas of minimally invasive surgery. Endosurgical devices for interventions.	6
2.	Technique of endovideosurgical interventions.	6
Module 2. Laparoscopic treatment of abdominal cavity and retroperitoneal organs. Laparoscopic diagnosis of tumors.		
3.	Laparoscopic diagnosis and treatment of the diseases of the genitourinary system.	6
4.	Laparoscopic diagnosis and treatment of hepatobiliary zone disorders.	6
5.	Laparoscopic diagnosis and treatment of hernia and benign tumours of the gastrointestinal tract.	6
6.	Laparoscopic diagnosis and treatment of malignant tumours.	6
Total		54

6. TOPICS OF LABORATORY LESSONS – NONE

7. INDEPENDENT WORK

#	Name of the Topic	Ammount of hours
Module 1. Bases of endoscopic surgery and its directions. Diagnostic laparoscopy. Complications of laparoscopy.		
1.	Laparoscopic methods of diagnosis and treatment of endometriosis.	2
2.	Laparoscopic obesity treatment.	2
3.	Thoracoscopic diagnosis of diseases of the chest cavity and mediastinum.	2
4.	Complications of thoracoscopic operations. Prevention and Treatment.	2
5.	Laparoscopic organostomies and other treatments.	2
6.	Laparoscopic splenectomy. Indications, technique.	4
7.	Laparoscopic treatment of adhesive disease.	2
8.	Thoracoscopic thoracic sympathectomy. Indications, technique.	2
9.	Thoracoscopic treatment of bullous disease and lung cancer.	2
10.	Thoracoscopic treatment of diseases of the esophagus and thymus.	2
11.	Lumbar sympathectomy. Indications, technique.	2
Total		24

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 be 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, course 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. ACG Clinical Guideline: Diagnosis and Management of Achalasia, 2016
2. ACC/AHA Guidelines for the Management of Patients With Unstable Angina and Non–ST-Segment Elevation Myocardial Infarction, 2016
3. WSES Jerusalem Guidelines For Diagnosis And Treatment Of Acute Appendicitis, 2014
4. Protocol for Diagnosis and Treatment of Peptic Ulcer in Adults //American International Health Alliance: Clinical Practice Guidelines for General Practitioners, 2016
5. Clinical Guideline For The Treatment Of CAPD Peritonitis, 2015
6. EASL Clinical Practice Guidelines on the Prevention, Diagnosis and Treatment of Gallstones, 2014
7. Practice Guidelines in Acute Pancreatitis, 2014
8. European Hernia Society guidelines on the treatment of inguinal hernia in adult patients, 2016

Additional:

1. Mastery of Endoscopic and Laparoscopic Surgery W. Stephen, M.D. Eubanks; Steve Eubanks (Editor); Lee L., M.D. Swanstrom (Editor); Nathaniel J. Soper (Editor) Lippincott Williams & Wilkins 2nd Edition 2004
2. "Training in diagnostic laparoscopy". Gfmer.ch. Retrieved 2013-10-10.

3. Walid MS, Heaton RL (2010). "Laparoscopy-to-laparotomy quotient in obstetrics and gynecology residency programs". *Arch Gyn Ob* 283 (5): 1027–1031. doi:10.1007/s00404-010-1477-2. PMID 20414665.
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8. Mayol, Julio; Julio Garcia-Aguilar, Elena Ortiz-Oshiro, Jose A. De-Diego Carmona, Jesus A. Fernandez-Represa (June 1997). "Risks of the Minimal Access Approach for Laparoscopic Surgery: Multivariate Analysis of Morbidity Related to Umbilical Trocar Insertion". *World Journal of Surgery* 21 (5): 529–533. doi:10.1007/pl00012281.
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11. Peng Y, Zheng M, Ye Q, Chen X, Yu B, Liu B (January 2009). "Heated and humidified CO₂ prevents hypothermia, peritoneal injury, and intra-abdominal adhesions during prolonged laparoscopic insufflations". *J. Surg. Res.* 151 (1): 40–7. doi:10.1016/j.jss.2008.03.039. PMID 18639246.
12. Alexander JI, Hull MG (March 1987). "Abdominal pain after laparoscopy: the value of a gas drain". *Br J Obstet Gynaecol* 94 (3): 267–9. doi:10.1111/j.1471-0528.1987.tb02366.x. PMID 2952161.
13. Dörthe, Brüggmann; Garri Tchatchian, Markus Wallwiener, Karsten Münstedt, Hans-Rudolf Tinneberg, Andreas Hackethal (November 2010). "Intra-abdominal Adhesions - Definition, Origin, Significance in Surgical Practice, and Treatment Options". *Dtsch Arztebl Int.*: 769–775. doi:10.3238/arztebl.2010.0769.
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23. Semm K (March 1983). "Endoscopic Appendectomy". *Endoscopy* 15 (2): 59–64. doi:10.1055/s-2007-1021466. PMID 6221925.

15. INFORMATION RESOURCES

1. Methodological developments
2. Materialys of preparation for practical lessons
3. Preparation materials for lectures
4. Lectures