MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC

OSH STATE UNIVERSITY
INTERNATIONAL MEDICAL FACULTY
OBSTETRICS GYNECOLOGY AND SURGICAL DISCIPLINES DEPARTMENT

STUDENT TRAINING PROGRAM
(Syllabus)
for the 2025-2026 academic year

Specialty	**General Medicine**	**Course code**	**560001**
Tongue	**English**	**Basics of endoscopic surgery**	Basics of endoscopic surgery
Academic Year	**2025-2026**	**Total credits:**	**2**
Teacher	**Kubat Abdyrasulov**	**Semester**	**10th semester**
Email	kabdyrasulov@oshsu.kg	**Schedule according to the program of the IMF of Osh State University**	**Contacts: +996501010206**
Consultation (place and time)	**Thursday**	**From 12:00-17:00**	**IMF-2, 5 Monueva St., roomNo407**
Form of study (full-time/evening/distance)	**Day**	**Course Type: (Compulsory/Elective)**	**Obligatory**

Osh-2025

Discipline: **Basics of endoscopic surgery**
(Direction: 560001 - General Medicine)
Course – V
Semesters – X
Schedule of hours according to the curriculum

Name of the discipline	Number of hours					Self-work	Reporting
	Total: 2 credits	Audit. Classes					
		Auditory classes	Lecture	Practical classes	Labor.		
Basics of endoscopic surgery	60	24	10	14	-	36	Exam
General	60	24	10	14	-	36	

Work program for the discipline "Endoscopic Surgery".
1. GOALS AND OBJECTIVES OF MASTERING THE DISCIPLINE:
The purpose of mastering the discipline: mastering and in-depth study by students of the most pressing issues of the theory and practice of endoscopic surgery; familiarization of students with modern minimally invasive methods of diagnosis and treatment of surgical diseases, the formation of students' skills to determine pathological processes and diseases for which it is necessary to use methods of endoscopic surgery, to develop in the future clinical thinking.

Objectives of mastering the discipline:

1. The objectives of studying the discipline are: - teaching students the principles of organization and features of the work of surgical service units to perform endoscopic operations;

2. Formation of students' understanding of medical technologies that ensure the performance of endoscopic operations;

3. Mastering by students of the principles of selecting patients for endoscopic operations;

4. Training of students in the provision of first aid in patients with complications after endoscopic operations.

2. THE PLACE OF THE DISCIPLINE IN THE STRUCTURE OF THE BRI:
The discipline "Endoscopic Surgery" belongs to Block 1 "Compulsory Disciplines" of the variable part of the curriculum for training residents in the specialty 31.08.67 "Surgery"
The study of this academic discipline is based on the knowledge and skills gained during the training level "Specialist" in the specialties "General Medicine", "Pediatrics", as well as for knowledge and skills obtained in the study of the disciplines studied within the framework of this OBOR: "Surgery", "Traumatology", "Urology", "Simulation Course", "Microbiology", "Cardiovascular Surgery", "Pediatric Surgery", "Coloproctology", "Anesthesiology and Intensive Care", "Public Health and Healthcare".
A list of subsequent academic disciplines that require knowledge, skills and abilities formed by this academic discipline: "Surgery", "Traumatology", "Urology", "Simulation Course", "Microbiology", "Cardiovascular Surgery", "Pediatric Surgery", "Coloproctology", "Anesthesiology and Resuscitation", "Public Health and Health Care".

2. As a result of training and competencies of the student, formed in the process of studying the discipline "Endoscopic surgery"

In the process of mastering the discipline, the student will achieve the following **learning outcomes (LO)** and will have the appropriate **competencies:**

The Learning Outcomes Code of the General Education Program and its formulation	**Competencies of General Education Program**	**Discipline learning outcome code and its meaning**
Learning outcome-4 Can analyze and interpret the obtained data of objective examination, laboratory and instrumental data through the use of modern methods of research and diagnosis, somatic diseases and pathological conditions, prescribe adequate treatment. Apply the main issues of the examination of working capacity. **Learning outcome-7** Is able to apply basic knowledge in the field of diagnostic activities to solve professional problems.	**Professional competencies-7** - implement preventive measures to prevent infectious, parasitic and non-infectious diseases, conduct health education work on hygiene issues	**He knows and understands:** - Modern methods of diagnosing the most common surgical diseases **Be able to:** To collect, anamnesis, conduct a general clinical examination of patients with surgical diseases, draw up medical documentation. **Possess:** Palpation, percussion and auscultation of the organs of the thoracic and abdominal cavity. Skills to apply skin sutures, wound treatment, probe the stomach, conduct a digital examination of the rectum. **Knows:** **-** Modern methods of clinical, laboratory, instrumental examination of patients.

Learning outcome-8 Is able to apply basic knowledge in the field of medical activities to solve professional problems	**PC-15 -** is able to prescribe adequate treatment to patients in accordance with the diagnosis;	**Can:** **-** To anamnesize the data of the general clinical study. Based on the history and the results of the general clinical diagnosis, he makes a preliminary diagnosis. Possesses: Skills laparocentesis and pleural thoracentesis, with the help of a local examination, will determine the symptoms of acute surgical diseases. Conduct a digital examination of the rectum.
	PC-17 - is able to prescribe adequate treatment to patients in accordance with the diagnosis;	**He knows and understands:** - Basic rules of antiseptics and asepsis, the main groups of antiseptics. **-Be able to:** - use medical instruments, know how to store and sterilize them if necessary. **Owns:** - Technique of working with surgical instruments - perform punctures of joints and cavities - apply surgical sutures.

Learning outcomes

The student should know:

- Etiology and pathogenesis of terminal conditions;
- Clinic, course, complications and prognosis during anesthesia;
- Modern methods of clinical, laboratory and instrumental research;
- Modern principles of conservative and intensive care;
- Management of preoperative, during and postoperative periods.

Can:

- Collect anamnesis from the patient (or relatives);
- Conduct a physical examination of the patient;
- To determine the type and scope of clinical, laboratory and instrumental research methods;
- To palpate, percussion and auscultation of patients";

- Draw up a plan for the provision of emergency medical care and further intensive care;
- Establish the most trusting relationship with the patient, his relatives and medical professionals;
- work in a team.

Possess the following skills:

- Initial examination of patients.
- Removal of patients from terminal states.
- Intensive care.
- General and local anesthesia.

3. Prerequisites: anatomy, physiology, histology, normal and pathological physiology, pathological anatomy, pharmacology, first aid, general patient care.

4. Post-requisites: hospital surgery, pediatric surgery, traumatology, obstetrics and gynecology, oncology.

5. Technological map of the discipline

Flow chart of discipline:

<table>
<tr><th rowspan="2">Discipline</th><th rowspan="2">Credit</th><th rowspan="2">Oud. clock</th><th rowspan="2">CPC</th><th colspan="4">1 module (50 points)</th><th rowspan="2">Exam (50 points)</th></tr>
<tr><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2">40%</td><td rowspan="2">60%</td><td colspan="2">Oud. clock</td><td rowspan="2">SRS/SRS P</td><td rowspan="2">RK(r)</td></tr>
<tr><td>lek.</td><td>Ave.</td><td>IR (E)</td></tr>
<tr><td>OOC</td><td>2</td><td>24</td><td>36</td><td>14</td><td>10</td><td>30/6</td><td rowspan="2"></td><td></td></tr>
<tr><td colspan="4">Points card</td><td>8</td><td>8</td><td>16</td><td>18</td><td></td></tr>
<tr><td colspan="4" rowspan="2">Module and exam results</td><td colspan="4">(M=tsr.+r+s) to 50/50</td><td rowspan="2">50</td></tr>
<tr><td colspan="4">Rdop. = M1 (30-50)</td></tr>
<tr><td colspan="4">Final Score</td><td colspan="4">I = Rdop. + E</td><td>100</td></tr>
</table>

6. IWS organization plan

№	Subject	Task for SRS	Time	Assessment tools	Points	Literature	Completion date
1.	Basics of endoscopic surgery	**Laparoscopic operations for duodenal perforation**	**2 hours**	Dimedus	**8**	J.M.Canard,J.C. Létard, L.Palazzo.Gastrointestinal endoscopy in practice: 1st edition. in English. 2011	
2.	Surgical diseases	**Acute appendicitis**	**2 hours**	Dimedus	**8**	1.R.K. Mishra, Textbook of Practical Laparoscopic Surgery, 3rd Edition, in English. 2013. 2.Prepladder Surgery notes.	

7. IWS Consultation Plan

№	Task topic	Form of SRSP	Hours	Form of control	Image Resources	Places (building)	Date
1.	**Laparoscopic splenectomy**	Consultation	2	Test and viva		IMF-2 Monueva	

2.	**Laparoscopic operations for duodenal perforation.**	Discussion	2	Viva questions		Osh special hospital	

Assessment system

Declaration of Academic Integrity: Students taking this course must submit a declaration requiring them to comply with the university's policy on academic integrity. Regulations "Organization of the educational process at Osh State University" A-2024-0001, 2024.01.03.2024

8. Summary of the discipline "Basics of endoscopic surgery"

Topics of the lecture:

1. Endoscopic equipment. Diagnostic upper endoscopy.
2. Diagnostic colonoscopy.
3. Laparoscopic equipment, instruments and port positions. Sterilization of laparoscopic instruments.
4. Laparoscopic cholecystectomy.
5. Laparoscopic appendectomy.
6. Endoscopic Retrograde Cholangiopancreatography (ERCP).
7. Laparoscopic fundoplication.
8. Diagnostic Laparoscopy.Module.

9. Calendar and thematic plan of the discipline of the 5th year.

№	Name of the discipline sections	Classroom classes		Self-study	Image. Technology	Assessment tools
		Lecture	Practical ~			
1	**Endoscopic equipment. Diagnostic upper endoscopy**	1	1	2	Lecture. Presentation Brainstorming.	Tests, situational cases, abstracts, patients.
2	**Diagnostic colonoscopy.**	1	1	2	Lecture. Presentation Brainstorming.	Tests, situational cases, abstracts,

						patients.
3	**Laparoscopic equipment, instruments and port positions. Sterilization of laparoscopic instruments.**	1	1	2	Lecture. Presentation Brainstorming.	Tests, situational cases, abstracts, patients.
4	**Laparoscopic cholecystectomy.**		1	2	Lecture. Presentation Brainstorming.	Tests, situational cases, abstracts, patients.
5	**Laparoscopic appendectomy.**	1	1	2	Lecture. Presentation Brainstorming.	Tests, situational cases, abstracts, patients.
6	**Endoscopic Retrograde Cholangiopancreatography (ERCP).**	1	1	2	Lecture. Presentation Brainstorming.	Tests, situational cases, abstracts, patients.
7	**Laparoscopic fundoplication.**	1	1	2	Lecture. Presentation Brainstorming.	Tests, situational cases, abstracts, patients.
8	**Diagnostic Laparoscopy. Module.**	1	1	2		
	Total	8	8	16		

	Тема СРСП	**Задание для СРСП (Практические занятия)**	**Часы**	**Оценочные средства**	**Балл**	**Образовательные ресурсы**	**Место (здание/аудитория)**	**Срок сдачи**
1	Diagnostic upper endoscopy and colonoscopy.	PPT presentation and discussion	2	MCQ	10	https://www.youtube.com/watch?v=1sbDbe4F6cc&ab_channel=IAGESChannel Medscape.com https://emedicine.medscape.com/article/1851864-overview Medscape.com https://emedicine.medscape.com/article/1819350-	Спец. Больница Аудитория 1	13.09.2025

						overview https:// www.youtube.com/ watch? v=BakAQ68bDVc& ab_channel=Dr.R.K. Mishra https:// www.youtube.com/ watch?v=_pWsV5A-FEU&ab_channel=Dr.R.K.Mishra		
2.	Diagnostic laparoscopy	Report and case-study	2	MCQ	10	https:// www.youtube.com/ watch? v=rSbToNa3i3k&ab_channel=Dr.R.K.Mishra https:// emedicine.medscape.com/article/1829759-overview https:// emedicine.medscape.com/article/1892517-overview	Спец. Больница Аудитория 1	20.09.2025

	Тема СРСП	**Задание для СРСП (Лекция)**	**Часы**	**Оценочные средства**	**Балл**	**Образовательные ресурсы**	**Место (здание/аудитория)**	**Срок сдачи**
	Endoscopic Retrograde Cholangiopancreatography (ERCP)	Listening and making charts during the lecture	2	Google Classroom MCQ	10	https:// emedicine.medscape.com/ article/ 1829797-overview	ММФ-1 Красный Зал	27.09.2025

10. Scoring Policy

(criteria for assessing students' knowledge at exams)

Evaluation is the final stage of the student's educational activity, aimed at determining the success of learning.

Grade by discipline It is set as an arithmetic average of the grades for the modules into which the academic discipline is structured (60 points) and from the grades during the final control - exam (40 points).

Module Score is defined as the sum of the assessments of current educational activity and the assessment of the midterm modular control, expressed on a multi-point scale (60 points).

I. Module Assessment

The grade for the module is determined as the sum of the assessments of current educational activities (in points) and the assessment of the intermediate modular control (in points), which is set when assessing theoretical knowledge and practical skills.

A) Assessment of current educational activities.

When assessing the assimilation of each topic of the module, the student is given points for **attendance** and for the change **tests**. At the same time, all types of work provided for by the methodological development for the study of the topic are taken into account.

The weight (price in points) of each test within one module is the same, but may be different for different modules and is determined by the number of practical classes in the module.

The main difference **tests** of the current practical classes is that the student must demonstrate the ability to synthesize theoretical and practical knowledge acquired within the framework of one test (semantic module). During the tests, control questions, tests, lexical minimum and situational tasks proposed in methodological developments for students are considered, as well as practical skills on the topics of the semantic module are consolidated and controlled. The previously studied educational elements are analyzed in interrelation, conclusions and conclusions are built.

B) Boundary control (colloquium) semantic modules takes place in 2 stages:

- oral interview,
- written or computer test control.

For testing, 150-200 tests are offered on each topic, from which the computer or teacher randomly selects 30 tests in 5-6 options.

An oral interview is held on the basis of the materials of practical, lecture, extracurricular courses with a mandatory demonstration on educational materials. The price in boundary control points is the same as the price of the current practical lesson within this module of the discipline.

Students are allowed to retake only unsatisfactory grades, positive grades are not retaken.

Assessment of extracurricular work of students.

A) Assessment of students' independent work.

Independent work of students, which is provided for the topic along with classroom work, is evaluated during the current control at the corresponding practical lesson. The level of

assimilation of topics that are submitted only for independent work is assessed at the mid-term control.

B) Evaluation of the student's individual work (task).

Students (optionally) can choose one of the individual tasks on the topic of the module. This can be UIRS or SRWS in the form of:

- preparation of a review of scientific literature (abstract),
- preparation of illustrative material on the topics under consideration (multimedia presentation, a set of tables, diagrams, figures, etc.),
- production of educational and museum materials, demonstration models,
- conducting scientific research within the framework of a student scientific circle department or planned departmental theme,
- publication of scientific reports, reports at scientific conferences, etc.,
- participation in Olympiads.

Points for individual tasks are awarded to the student only upon their successful completion and defense (prizes in the corresponding competitions). The number of points that is awarded for individual work is added to the sum of points scored by the student during the exam.

A student can score points in all types of classes.

Module 1: a student can score up to 0.55 points in one lecture (up to 5 points in a maximum of 9 lectures), up to 1 point in the 1st practical lesson (up to 10 points in a maximum of 10 classes), up to 0.7 points in the 1st CPC (up to 5 points in a maximum of 7 classes) and up to 10 points in RC1, ***in total for module 1 student can score up to 30 points***.

Module 2: a student can score up to 0.55 points in one lecture (up to 5 points in a maximum of 9 lectures), up to 0.9 points in the 1st practical lesson (up to 10 points in a maximum of 11 classes), up to 0.7 points in the 1st CPC (up to 5 points in a maximum of 7 classes) and up to 10 points in RC2, ***in total for module 2 a student can score up to 30 points***.

11. Course Policy

The policy of the discipline is aimed at the most complete mastery of the educational material by students and fruitful cooperation between teachers and students

Students are obliged to:

- Fully master knowledge, skills and practical skills;
- Treat teachers, staff and students with respect and correctness;
- Students must be disciplined and tidy, behave with dignity at the University, in hospitals.
- With the beginning of classes, silence and order necessary for the normal course of training sessions must be ensured in all classrooms and adjacent to them;
- Students enter and leave the classroom after the start of classes (the actual start of classes by the teacher) is allowed only with the permission of the teacher;
- Be sure to attend lectures, practical (seminars, laboratory) classes, classes on SRSP;

- Attend practical (seminars, laboratory) classes, exams in medical uniform;
- Have sanitary books at clinical departments with access from the SES.
- Take care of the property of the department;
- Comply with fire safety rules
- Comply with the internal regulations of the academy
- Actively participate in the life of the department (work in the SSS circle, events of the department, etc.).
- Turn off mobile phones during lectures, classes; It is forbidden to take cell phones to exams.
- Attendance at lectures is mandatory. In case of missing lectures, the material is worked out in the form of preparing a lecture summary and an interview with the lecturer.
- Work out at departments and courses should be carried out outside school hours - on Saturdays, in the clinic - it is allowed to work out during the night duty of the teaching staff.
- The student is obliged to work out the lesson in the number of hours missed according to the program.
- In case of missing classes by students for a valid reason (being on inpatient treatment, the occurrence of emergency events: natural disasters, accidents, etc.), the student or his relatives are obliged to inform the department about the incident within a day in any way (by phone, etc.) with the provision of documents confirming this circumstance within three days. Supporting documents are: a certificate from a student clinic, a death certificate of relatives, a donor certificate, a marriage certificate, a child's birth certificate. In the absence of supporting documents, the reason is considered unjustified.

12. **List of exam and module questions.**

LIST OF QUESTIONS

1. What are the main features of endosurgery that distinguish it from traditional surgery?

2. What are the advantages of endosurgery compared to traditional interventions?

3. List what makes up the aggressiveness of surgical procedures.

4. Instruments and equipment in endosurgery.

5. Features of anesthesia.

6. General complications.

7. Describe the main components of equipment for endoscopic interventions.

8. Name the main groups of instruments for endoscopic interventions.

9. Name the tests to check the position of the Veres needle in the abdominal cavity.

10. Explain what open laparoscopy is.

11. Name the gases used to create pneumoperitoneum.

12. What are the main indications for conversion (transition to open surgery).

13. Explain the mechanism of the effect of high-frequency current on tissues during cutting and coagulation.

14. What are the main causes of complications in endoscopic electrosurgery?

15. List the common complications of laparoscopy.

16. What are the methods of prevention of common complications in laparoscopy?

17. What are the indications for diagnostic laparoscopy?

18. What are the contraindications to diagnostic laparoscopy?

19. Name the main access points for laparoscopy, show how to determine the location

of the first injection.

20. Name the main positions of the patient during laparoscopy, explain their advantages and disadvantages.

21. What are the possible options for laparoscopic appendectomies?

22. List the disadvantages of laparoscopic appendectomies for acute appendicitis.

23. What are the main complications characteristic of laparoscopic appendectomy?

24. What are the indications and contraindications for laparoscopic cholecystectomy?

25. Tell us what the preoperative examination of patients with cholelithiasis consists of.

26. List the options for blood supply to the gallbladder, options for the anatomy of the bile ducts.

27. What are the types of location of the operating team during cholecystectomy?

28. List the features of the surgical technique for cholecystectomy, methods of dissection and traction.

29. What are the indications for conversion in cholecystectomy?

30. Outline the tactics for detecting choledocholithiasis in laparoscopic operations,

in the pre-, intra-, postoperative period

31. Tell us about the classification of biliary tract injuries.

32. What are the risk factors for biliary tract injuries during cholecystectomy?

33. Name the main sources of bile flow and bleeding in the laparoscopic

Surgery of the Cholelithian Clinical Hospital.

34. Indications and contraindications for laparoscopic hernioplasty. The main techniques in laparoscopic treatment of inguinal and ventral hernias.

35. Advantages and disadvantages of laparoscopic operations for hernias.

36. Types of fundplastics in gastroesophageal reflux.

1. Endoscopic equipment. Diagnostic upper endoscopy.
2. Diagnostic colonoscopy.
3. Laparoscopic equipment, instruments and port positions. Sterilization of laparoscopic instruments.
4. Laparoscopic cholecystectomy.
5. Laparoscopic appendectomy.
6. Endoscopic Retrograde Cholangiopancreatography (ERCP).
7. Laparoscopic fundoplication.
8. Diagnostic laparoscopy.
9. Laparoscopic operations for inguinal hernias.
10. Laparoscopic operations for duodenal perforation.
11. Sleeve gastrectomy.
12. Diagnostic laparoscopy and excision of adhesions.
13. Laparoscopic splenectomy.
14. Laparoscopic colorectal surgery.

13. Educational and methodological support of the course.

Reference citations:

1 .J.M.Canard,J.C.Létard, L.Palazzo.Gastrointestinal endoscopy in practice: 1st edition. in English. 2011

2.R.K. Mishra, Textbook of Practical Laparoscopic Surgery, 3rd Edition, in English. 2013.

1. Prepladder Surgery notes.

2. N. Kathuda.Advanced Laparoscopic Surgery: Techniques and Tips, 2nd edition in English.2010.

3. MEDSCAPE.ORG

Logs:

1. Gastrointestinal endoscopy **giejournal.org**
2. Journal of Minimally invasive surgery.
3. Annals of Laparoscopic and Endoscopic surgery.

Internet resources:

a. MEDSCAPE.ORG
b. PubMed.ORG

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