MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of Surgery

APPROVED BY
Vice-Rector for Scientific and Pedagogical Work
_____ Eduard Buryachkivskyi

"01" September 2023

SYLLABUS FOR THE ELECTIVE ACADEMIC DISCIPLINE "MECHANICAL JAUNDICE"

Level of Higher Education: Second (Master's)
Field of Knowledge: 22 "Healthcare"

Specialty: 222 "Medicine"

Educational-Professional Program: "Medicine"

2023

The working program is based on the educational-professional program "Medicine" for the preparation of specialists at the second (master's) level of higher education in the specialty 222 "Medicine" of the field of knowledge 22 "Healthcare", adopted by the Scientific Council of ONMedU (protocol № 8 from June 29, 2023).

Developers:

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The working program was approved at the meeting of the Department of Surgery
Protocol № 1 from "27" August 2023
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Agreed with the OPP guarantor _____ Valeriya MARICHEREDA

Approved by the subject-cycle methodical commission on surgical disciplines Protocol № 1 from "28" August 2023
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Reviewed and approved at the meeting of the Department of Surgery Protocol № 1 from 04 September 2023
Head of the Department _____ Volodymyr GRUBNIK

1. **Description of the Academic Discipline:**

Indicators name	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the academic discipline
Total number: Credits: 3 Hours: 90 Content Modules: 1	Field of Knowledge 22 "Healthcare" Specialty 222 "Medicine" Level of Higher Education Second (Master's)	*Full-time study* *Elective discipline*
		Year of study: 6
		Semesters XI
		Lectures (0 hrs.)
		Practical (30 hrs.)
		Independent work (60 hrs.)
		Form of final control - credit

2. Purpose and objectives of the academic discipline

Purpose: To acquire theoretical and practical knowledge about the use of modern methods of examination, treatment, and techniques of surgical interventions in patients with mechanical jaundice. To emphasize the significance of the national surgical school in developing modern treatment methods for mechanical jaundice.

Objectives:

- To form a correct understanding of the moral-deontological principles of the medical professional in surgical specialties among higher education seekers.
- To master modern methods of examining patients with mechanical jaundice.
- To develop a system of theoretical knowledge about the possibility of using the latest methods for diagnosing and treating patients with mechanical jaundice.
- To learn to organize quality medical care for patients with mechanical jaundice.
- To determine the tactics of examining patients with mechanical jaundice.
- To master the interpretation of laboratory and instrumental research methods.
- To learn to determine the method and extent of surgical intervention.
- To master the principles of preoperative preparation of patients with mechanical jaundice.
- To master the causes and complications of surgical interventions in patients with mechanical jaundice.
- To learn the advantages of laparoscopic interventions.

The process of studying the discipline is aimed at forming elements of the following competencies

General (GC):

GC3. The ability to apply knowledge in practical situations.

GC4. Knowledge and understanding of the subject area and understanding of professional activity.

GC6. The ability to make justified decisions.

GC7. The ability to work in a team.

GC8. The ability to interpersonal interaction.

GC12. Determination and perseverance regarding set tasks and obligations.

Special (SC):

SC1. The ability to collect medical information about a patient and analyze clinical data.

SC2. The ability to determine the necessary list of laboratory and instrumental research and assess their results.

SC3. The ability to establish a preliminary and clinical diagnosis of a disease.

SC4. The ability to determine the necessary regime of work and rest in the treatment and prevention of diseases.

SC5. The ability to determine the nature of nutrition in the treatment and prevention of diseases.

SC6. The ability to determine the principles and nature of treatment and prevention of diseases.

SC7. The ability to diagnose emergency conditions.

SC8. The ability to determine tactics and provide emergency medical care.

SC10. The ability to perform medical manipulations.

SC11. The ability to solve medical problems in new or unfamiliar environments with incomplete or limited information, taking into account social and ethical appropriateness.

SC16. The ability to maintain medical documentation, including electronic forms.

Learning Outcomes (LO):

LO3. Specialized conceptual knowledge that includes scientific achievements in the field of healthcare and is the basis for conducting research, critical reflection of problems in the field of medicine and related interdisciplinary problems.

LO4. Identify and identify leading clinical symptoms and syndromes; using standard techniques, based on previous patient history data, patient examination data, knowledge about a person, their organs, and systems, establish a preliminary clinical diagnosis of the disease.

LO5. Collect complaints, life, and disease history, assess the psychomotor and physical development of the patient, the condition of the organs and systems of the body, based on the results of laboratory and instrumental research, assess information regarding the diagnosis.

LO6. Establish a final clinical diagnosis by making a justified decision and analyzing obtained subjective and objective clinical data, additional examination, conducting differential diagnosis, adhering to relevant ethical and legal norms, under the control of a supervising doctor in a healthcare institution.

LO7. Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) for patients with diseases of organs and systems of the body for differential diagnosis of diseases.

LO8. Determine the main clinical syndrome or symptom that determines the severity of the condition of the victim/sufferer by making a justified decision on the condition of a person under any circumstances (in a healthcare institution, outside it), including in emergency situations and combat operations, in field conditions, in conditions of lack of information and limited time.

LO9. Determine the nature and principles of treatment of patients (conservative, surgical) with diseases, taking into account the age of the patient, in a healthcare institution, outside it and at the stages of medical evacuation, including in field conditions, based on a preliminary clinical diagnosis, adhering to relevant ethical and legal norms, by making a justified decision according to existing algorithms and standard schemes, if necessary expanding the standard scheme be able to justify personalized recommendations under the control of a supervising doctor in a medical institution.

LO10. Determine the necessary regime of work, rest, and nutrition based on the final clinical diagnosis, adhering to relevant ethical and legal norms, by making a justified decision according to existing algorithms and standard schemes.

LO17. Perform medical manipulations in a medical institution, at home or in production based on a preliminary clinical diagnosis and/or indicators of the patient's condition by making a justified decision, adhering to relevant ethical and legal norms.

LO18. Determine the state of functioning and limitations of a person's life activity and the duration of disability with the preparation of relevant documents, in a healthcare institution based on data about the disease and its course, the specifics of a person's professional activity, etc. Keep medical documentation on the patient and the population contingent based on regulatory documents.

LO19. Plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population.

LO24. Organize the necessary level of individual safety (own and of persons cared for) in case of typical dangerous situations in the individual field of activity.

As a result of studying the academic discipline, the higher education seeker should:

know:

- Identify anamnestic and clinical objective signs that led to the development of mechanical jaundice.
- Diagnose mechanical jaundice and conduct differential diagnosis of jaundices.
- Anatomy of the liver and biliary tracts; clinical picture of mechanical jaundice.
- Methods of instrumental and laboratory research of patients with mechanical jaundice.
- Conservative and surgical treatment of patients with mechanical jaundice.

be able to:

- Communicate with patients, collect complaints, life and disease history.
- Conduct clinical examination of patients using standard techniques.
- Analyze the results of laboratory, functional, and instrumental research.
- Conduct differential diagnosis between jaundices of different genesis.
- Determine the diagnosis of the disease.
- Determine the tactics and provide emergency medical care in urgent conditions in patients with mechanical jaundice.
- Maintain medical documentation for surgical diseases in patients.
- Prescribe conservative therapy for the disease.
- Justify indications for surgical intervention in a specific situation.

3. Content of the academic discipline

Topic 1: Differential diagnosis of jaundice at the pre-hospital stage. Differential diagnosis of jaundice in hospital settings. Choledocholithiasis.

Topic 2: Cholangitis. Symptoms in patients with mechanical jaundice. Liver failure in surgical diseases.

Topic 3: Diagnosis of mechanical jaundice (additional examination methods). Treatment of mechanical jaundice. Complications in patients with mechanical jaundice.

Topic 4: Surgical tactics in mechanical jaundice. Tumors of the head of the pancreas. Tumors, Vater's papilla, intraductal tumors as a cause of mechanical jaundice.

Topic 5: Latest surgical interventions in mechanical jaundice. Open operations on the hepaticholedochus and the major duodenal papilla. Mechanical jaundice. Prevention.

4. Structure of the Academic Discipline

	Topic	Practical classes	IW	Total
1.	Differential diagnosis of jaundice at the pre-hospital stage.	6	12	18

	Differential diagnosis of jaundice in hospital settings. Choledocholithiasis.			
2.	Cholangitis. Symptoms in patients with mechanical jaundice. Liver failure in surgical diseases	6	12	18
3.	Diagnosis of mechanical jaundice (additional examination methods). Treatment of mechanical jaundice. Complications in patients with mechanical jaundice.	6	12	18
4.	Surgical tactics in mechanical jaundice. Tumors of the head of the pancreas. Tumors, Vater's papilla, intraductal tumors as a cause of mechanical jaundice.	6	12	18
5.	Latest surgical interventions in mechanical jaundice Open operations on the hepaticholedochus and the major duodenal papilla. Mechanical jaundice. Prevention.	6	12	18
Total		30	60	90
Total hours		90		

5. Topics of lectures / seminars / practical / laboratory classes

1. **5.1. Topics of lectures**
2. Not provided
3. **5.2. Topics of practical classes**

№ з/п	Topic	Number of hours
1	Differential diagnosis of jaundice at the pre-hospital stage. Differential diagnosis of jaundice in hospital settings. Choledocholithiasis	6
2	Cholangitis. Symptoms in patients with mechanical jaundice. Liver failure in surgical diseases	6
3	Diagnosis of mechanical jaundice (additional examination methods). Treatment of mechanical jaundice. Complications in patients with mechanical jaundice.	6
4	Surgical tactics in mechanical jaundice. Tumors of the head of the pancreas. Tumors, Vater's papilla, intraductal tumors as a cause of mechanical jaundice.	6
5	Latest surgical interventions in mechanical jaundice. Open operations on the hepaticholedochus and the major duodenal papilla. Mechanical jaundice. Prevention.	6
Всього		**30**

6. Independent work

№ п/п	Types of Independent Work	Number of hours
1	Differential diagnosis of jaundice at the pre-hospital stage. Differential diagnosis of jaundice in hospital settings. Choledocholithiasis	12
2	Cholangitis. Symptoms in patients with mechanical jaundice. Liver failure in surgical diseases	12
3	Determination of methods and volume of surgical intervention. Principles of preoperative preparation of patients with the "Acute abdomen" syndrome.	12
4	Surgical tactics in mechanical jaundice. Tumors of the head of the pancreas. Tumors, Vater's papilla, intraductal tumors as a cause of mechanical jaundice	12
5	Latest surgical interventions in mechanical jaundice. Open operations on the hepaticholedochus and the major duodenal papilla. Mechanical jaundice. Prevention	12
	Total hours	**60**

7. Teaching Methods

Practical classes: oral and written questioning, solving test tasks, solving typical and atypical situational problems, under the teacher's supervision, training of relevant practical skills and professional abilities on simulation models.

Independent work: independent work with recommended primary and additional literature, electronic information resources, independent mastering of communication algorithms with surgical patients.

8.Forms of control and methods of assessment (including criteria for assessing learning outcomes)

Current control: oral questioning, testing, assessment of practical skills performance, problem-solving.

Final control: credit..

Assessment of current academic activity in practical classes:

1. Assessment of theoretical knowledge on the topic of the class:
   - methods: questioning, solving a situational problem
   - maximum score – 5, minimum score – 3, unsatisfactory score – 2.
2. Assessment of practical skills on the topic of the class:
   - methods: assessment of the correctness of practical skills performance
   - maximum score – 5, minimum score – 3, unsatisfactory score – 2.

The score for one practical class is the arithmetic mean of all components and can only have an integer value (5, 4, 3, 2), rounded according to the method of statistics.

Criteria for current assessment in practical classes

Grade	Criteria for assessment
«5»	The learner actively participates in the discussion of the most complex issues of the topic, gives at least 90% correct answers to standardized test tasks, answers written tasks without errors, performs practical work, and completes the protocol.

«4»	The learner participates in the discussion of the most complex issues of the topic, gives at least 75% correct answers to standardized test tasks, makes minor errors in responses to written tasks, performs practical work, and completes the protocol.
«3»	The learner participates in the discussion of the most complex issues of the topic, gives at least 60% correct answers to standardized test tasks, makes significant errors in responses to written tasks, performs practical work, and completes the protocol.
«2»	The learner does not participate in the discussion of complex issues of the topic, gives less than 60% correct answers to standardized test tasks, makes gross errors in responses to written tasks or does not provide answers to them, does not perform practical work, and does not complete the protocol.

A credit is awarded to a learner who has completed all tasks of the course's work program, actively participated in practical classes, completed and defended an individual task, and has an average current score of at least 3.0 with no academic debts.

The credit is carried out: at the last class before the start of the examination session - with a ribbon system of training, at the last class - with a cyclical system of training. The score for the credit is the arithmetic mean of all components on the traditional four-point scale and has a value rounded according to the method of statistics to two decimal places.

9. Distribution of points earned by higher education seekers

The average score obtained for the academic discipline by learners who have successfully mastered the work program of the academic discipline is converted from the traditional four-point scale to points on a 200-point scale, as shown in the table:

Conversion table of traditional grades to a multi-point scale

Traditional four-point scale	Multi-point 200-point Scale
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150
Unsatisfactory («2»)	Below 120

The multi-point scale (200-point scale) reflects the actual success of each learner in mastering the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point scale is performed by the University's Information and Technical Department.

According to the points obtained on the 200-point scale, the achievements of the learners are assessed on the ECTS rating scale. Further ranking on the ECTS scale allows assessing the achievements of learners in an educational component who are studying in the same course of the same specialty, according to their scores.

The ECTS scale is a relative-comparative rating, which establishes the learner's belonging to the best or worst group among the reference group of peers (faculty, specialty). The grade "A" on the ECTS scale cannot be equivalent to the grade "excellent", and the grade "B" – to the grade "good", etc. When converting from a multi-point scale, the boundaries of the grades "A", "B", "C", "D", "E" on the ECTS scale do not coincide with the boundaries of the grades "5", "4", "3" on the traditional scale. Learners who received grades "FX" and "F" ("2") are not included in the ranking list. The grade "FX" is given to learners who have scored the minimum number of points for current academic activity but have not passed the final control. The grade "F" is given to learners who attended all classes in the discipline but did not score an average grade (3.00) for current academic activity and were not allowed to take the final control. Learners studying in the same course (of the same specialty), based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

Conversion of traditional discipline grades and total points on the ECTS scale

ECTS Scale Grade	Statistical indicator
A	Top 10% of learners
B	Next 25% of learners
C	Next 30% of learners
D	Next 25% of learners
E	Next 10% of learners

10. Methodological Support:

- Working program of the academic discipline
- Syllabus of the academic discipline
- Multimedia presentations
- Situational tasks
- Methodical developments of practical classes
- Methodical recommendations for independent work of learners

11. Questions for Final Control

1. Pathophysiology of mechanical jaundice. Main mechanisms of development of mechanical jaundice.
2. Etiology of mechanical jaundice.
3. Diagnostic methods: the most effective instrumental and laboratory studies for the diagnosis of mechanical jaundice.
4. Clinical manifestations of mechanical jaundice: What symptoms and signs are characteristic of mechanical jaundice?
5. Differential diagnosis of jaundice at the pre-hospital stage.
6. Differential diagnosis of jaundice in hospital settings.
7. Complications of mechanical jaundice.
8. Choledocholithiasis.
9. Liver failure in surgical diseases.
10. Treatment of mechanical jaundice.
11. Complications in patients with mechanical jaundice.
12. Surgical tactics in mechanical jaundice.
13. Tumors of the head of the pancreas.
14. Tumors of Vater's papilla, intraductal tumors as a cause of mechanical jaundice.
15. Latest surgical interventions in mechanical jaundice.
16. Open operations on the hepaticholedochus and the major duodenal papilla.
17. Mechanical jaundice. Prevention.

12 . Recommended Literature

Primary:

1. Endoscopic surgery: educational guide M. Zaporozhan, V.V., Grubnik V.V., Grubnik Yu.V., et al.; edited by V.M. Zaporozhan, V.V. Grubnik VSV "Medicine", 2019 - Kyiv: - p.87
2. Operative surgery and topographic anatomy edited by Prof. M Kovalsky. Publishing house "Medicine", year of publication - 2016.
3. Surgery / Ed. by P.G. Kondratenko, V.I. Rusyn, - Vinnytsia: Nova Knyha, 2018. - Vol.1. - 710 p.

Additional:

1. Preoperative diagnosis of hidden choledocholithiasis / Ardasyenov T.B., Freydovich D.A., Pankov A.G. et al// Annals of surgical hepatology. - 2011. - No. 16 (2). - P. 1824.
2. Selection of the method of surgical treatment of cholecystocholedocholithiasis / Kokhanenko N.Yu.,

Lataria E.L., Danilov S.A. et al// Annals of surgical hepatology. - 2011. - No. 16 (4). - P. 5661.
3. Shalimov A.A., Sayenko V.F. Surgery of the digestive tract. Kyiv, Zdorov'ya. 1987,568p.
4. Zyubina O.M. Surgical treatment of benign biliary obstruction: Dis... Dr. med. sciences. - Volgograd, 2008. - 324 p.
5. Mylivtsyv O.I. Transpapillary minimally invasive interventions for choledocholithiasis / Mylivtsyv O.I., Grygoryev S.M., Yakovlyeva M.V. //Annals of surgical hepatology. - 2011. - No. 16 (1). - P. 58-63.
6. Minimally invasive surgery of biliary tract pathology: Monograph/M.Ye. Nichitaylo, V.V. Grubnik, et al - Kyiv: "Medicine", 2013. - 295p.
7. Methods of decompression of the biliary system in the treatment of patients with the syndrome of mechanical jaundice / Khlopchykov A.Ya., Korovkin V.A., Fatikhova G.I. et al // Practical medicine. - 2011. - No. 49. - P. 84-87.
8. Shalimov A.A., Shalimov S.A., Nichitaylo M.Ye., Domansky B.V. Surgery of the liver and biliary tract. – Kyiv: Zdorov'ya, 1993.- 512p.
9. Surgical diseases (Ed. by P.G. Kondratenko) Kharkiv, 2006.

13. Information resources:

1. Website of the Department of Surgery: https://info.odmu.edu.ua/chair/surgery2
2. Ministry of Health of Ukraine: http://moz.gov.ua/
3. National Scientific Medical Library of Ukraine: http://www.library.gov.ua/
4. Testing Center of the Ministry of Health of Ukraine: http://testcentr.org.ua/
5. English-language web resource for doctors and other healthcare professionals: http://www.medscape.com
6. English-language textual database of medical and biological publications: http://www.pubmed.com
7. English-language web resource for doctors and other healthcare professionals: https://emedicine.medscape.com/pulmology