

MINISTRY OF THE HEALTH CARE OF UKRAINE

LVIV DANYLO HALYTSKY NATIONAL MEDICAL UNIVERSITY

(name of the central organ of education department, possessor)

APPROVED

First pro - rector
of scientific – pedagogical work
professor M.R. GRZEGOTSKY

____01. 09. 2021 year

SURGERY

(name of educational discipline)

WORKING PROGRAMME of educational discipline

preparation of specialists of second (masters degree) level of high education

(name level of the high education)

branch of knowledge 22 “Health Care”

(code and name of the branch of knowledge)

specialty 221 “Dentistry” (III course of teaching)

(code and name of specialty)

specialization(-s)

(name of specialization, at availability)

Discussed and approved on methodical session
of General Surgery Unit
Protocol № 8 for “13” __04__ 2021 year
The Head of Unit
prof. Andriuschenko V.P.

Approved by profiled methodical commission
of surgical disciplines
Protocol № 12 for “10” __09__ 2021 year
The Head of profiled methodical commission
prof. Andriuschenko V.P.

2021 year

DEVELOPED AND BROUGHT: Lviv Danylo Halytsky National Medical University
(total name of the high educational institution)

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INTRODUCTION

Program of study of educational discipline “Surgery” composited

in accordance to Standard of the high education of Ukraine (further – Standard) second (master»s) degree
(name of the high education level)

branch of knowledge 22 “Health Care”

(code and name of the branch of knowledge)

Specialty 221 “Dentistry”

(code and name of specialty)

Specialization(-s) _____

(code and name of specialization)

educational program of the dentistry master

(name of educational program)

Description of educational discipline (annotation). Educational discipline “Surgery” give possibility to occupy knowledge, skills and practical acquirements for students of dentistry faculty on 3 – rd year of education, that provide for specialist possibility to orientate very rapidly and correctly in situations at presence in the patients an acute surgical pathologies and other urgent conditions, avoid a fatal mistakes or loss of time and realize pressing steps, that will rescue human life and / or will become good underground for their further successful treatment in department. Mastering of discipline based on knowledge, acquired by students in process of study of anatomy, biology, physiology, general surgery and other basic subjects.

During mastering of discipline “Surgery” there is rational an introduction to educational process a modern world elaborations and standards of the main questions of surgery and urgent aid with wide usage of means of complex of practically - orientated learning.

The program of educational discipline “General surgery” was written in accordance to demands of: Legislations of Ukraine «About education», «About high education», «About scientific and scientific - technical activity», «About information»; normative acts of Cabinet Ministers of Ukraine; decrees of Ministry of Education and Science of Ukraine and other valid legislation, that regulate organization of educational process and order of specialists preparation in the high medical educational institutions of Ministry of the Health Care of Ukraine, in particular, letter of the State institution “Central methodical cabinet of high medical education of Ministry of the Health Care of Ukraine” for 10.03.2017 №23-01-9/87; Letter of Ministry of the Health Care of Ukraine for 26.07.2016 №23-01-9/268; Decree of Ministry of Education and Science of Ukraine for 16.10.2009 year., № 943 “About introduction in the high educational institutions of Ukraine an European credit – transfer system”; Resolution of Cabinet Ministers of Ukraine for 29.04.2015 year. №266 “About approval of the list of branches of knowledge and specialties, for which realized preparation of getters of the high education”, the Letter of SI [State Institution] "Central methodical cabinet of the high methodical education of Ministry of the Health Care of Ukraine" for 12.01.2018 year., № 23-01-9/7; Decree of Rector of the Lviv National medical university named after Danylo Halytsky for 15.12.2017, № 3474-g.

The subject of study of discipline are main signs of surgical diseases, principles of correct interpretation of clinical information taken during patient examination, and basic principles of patients treatment with surgical diseases.

Interdisciplinary connections: normal anatomy, normal physiology, histology, morbid anatomy, morbid physiology, pharmacology, general surgery.

1. The aim and tasks of educational discipline

1.1. The purpose of teaching of educational discipline “Surgery” is mastering of theoretical and practical knowledge of etiology, pathogenesis, typical clinical signs, diagnostic methods, conservative and operative treatment, rehabilitation of surgical pathologies in spectrum, appropriates to program of preparation of dental doctor (dentist) including peculiarities of its specialty.

1.2. The main tasks of study of discipline “Surgery” is acquirement a knowledge, skills and habits for providing of students adaptation to patients of surgical profile; skills to make diagnosis, to choose appropriate a medical - diagnostic manipulations (procedures), to provide urgent aid to sick with surgical pathology.

1.3 Competences and results of study, formation of which promotes experience (relationship with normative content of preparation of the getter of high education, formulated in terms of results of study in Standard).

In accordance to demands of standard a discipline ensures the acquirement by students **competences:**

-integral: ability to solve a complex problems and practical problems in branch of professional activity 22 “Health Care”, that foresees application of definite theoretical knowledge, skills, practical habits and methods of appropriate professional direction;

-general: ability to use knowledge in existent situations; carrying out of researches on appropriate level; to adaptation and actions in new situations, activity in autonomy and commanding regimens, evaluation and providing a quality of performed works; connection by the state language as orally, as in written form, to search, elaboration and analysis of information from different sources; revealing and decision of problems; acceptance of reasonable decisions, formation of the basic ideas, that promote a development of general culture and socialization of person, ethic values, important stages of the home history, ability to understanding of causally – consequential connections of society development with their application in professional and social activity on base; position of fundamental sciences, activity in according with general safety and ethical principles (motives) also.

-special (professional, objective): understanding of the main principles of organization of surgical aid for population of Ukraine; clinical - laboratory and additional methods of diagnosis of surgical pathology of organism; etiology, pathogenesis, clinics, diagnosis and methods of treatment of surgical diseases (in average of educational program); etiologic, pathogenetic factors, clinical signs and diagnostics of urgent states; tactics of giving of urgent surgical aid; organization of carrying out of medical - evacuation measures; providing of first medical aid at different kinds of damages.

Detailing of competences accordingly to descriptors of NRC in the form «Matrix of competences».

Matrix of competencies

№	Competence	Knowle dge	Skills	Communicat ion	Autonomy and responsibility
Integral competence		Ability to solve a complex of specialized problems and practical tasks in branch of professional activity 22 “Health Care”, that foresee application of certain theoretical knowledge, practical skills and methods of appropriate professional direction			
General competencies					
GC.1.	Ability of application of knowledge in practical situations		+	+	+
GC.2.	Ability of carrying out of reserches on appropriate level		+	+	+
GC.3.	Ability to adaptation and action in new situation		+	+	+
GC.4.	Ability to work as autonomously as in the team		+	+	+
GC.5.	Ability to compare and provide quality of performed works		+	+	+
GC.6.	Ability to communicate on state language as orally as in writing form		+	+	+
GC.7.	Ability to search, processing and analysis of information from different sources	+	+	+	+
GC.8.	Facility to reveal, to put and decide problems		+	+	+
GC.9.	Ability to make reasonable decisions		+	+	+
GC.10.	Basic conceptions about fundamentals of medical knowledge, that promote a development of general culture and socialization of person, predisposition	+	+	+	+

	to ethic values, understanding of home history, understanding of causally – consequential connections of society development and competency their application in professional and social activity				
GC.1 1.	Basic knowledge of fundamental sciences, in extent, that required for adoption of generally – professional disciplines	+	+	+	+
GC.1 2.	Ability to be critical and self - critical		+	+	+
GC.1 3.	Ability to do on base of ethic considerations (motives)		+	+	+
GC.1 4.	Habits of implementation safety activity	+	+	+	+
Special (professional) competencies					
SC.1.	The main principles of diagnostics and therapy of shock	+	+	+	+
	Providing of first medical aid of urgent states	+	+	+	+
SC.3.	Providing of first medical aid of selective kinds of acute surgical infection	+	+	+	+
	Principles of antibiotics therapy	+	+	+	+
SC.5.	Providing of medical aid of specific surgical infection	+	+	+	+
SC.6.	Principles of diagnosis and treatment of diseases of thyroid gland	+	+	+	+
SC.7.	Principles of diagnosis and treatment of diseases of the mammary gland	+	+	+	+
SC.8.	Principles of diagnosis and treatment of esophagus diseases	+	+	+	+
SC.9.	Principles of diagnosis and treatment of the vessels diseases	+	+	+	+
SC.1 0.	Providing of medical aid on the main kinds of hernia	+	+	+	+
SC.1 1.	Principles of diagnosis and treatment of acute appendicitis	+	+	+	+
	Principles of diagnosis and treatment of biliary system diseases	+	+	+	+
SC.1 3.	Principles of diagnosis and treatment of acute gut obstruction	+	+	+	+
SC.1 4.	Principles of diagnosis and treatment of diseases of the pancreatic gland	+	+	+	+
SC.1 5.	Basic principles of mini – invasive surgery	+	+	+	+

Together hours	90	10	30			50						
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4. Themes of lessons (lectures)

№ In order	Name of topic	Amount of hours
1	Shock. Intensive therapy of shock. Cardio - pulmonary resuscitation in stationary conditions.	2
2	General concepts of surgical infection. Modern principles of antibiotic therapy.	2
3	Vessels diseases.	2
4	Abdominal hernias.	2
5	Acute surgical pathology of abdominal cavity organs.	2

5. Topics of seminary lessons

Not provided

6. Topics of practical lessons

№ In order	Name of topic	Amount of hours
1	Shock. Therapy of shock. Cardio – pulmonary resuscitation in stationary conditions.	2
2	Acute purulent surgical infection of the soft tissues. Osteomyelitis. Surgical complications of diabetes. Sepsis. Principles of antibiotic therapy.	2
3	Acute specific surgical infection. Anaerobic infection. Tetanus. Diphtheria of the wounds. Anthrax. Chronical specific surgical infection.	2
4	Mediastinitis. Etiology, pathogenesis, clinical symptoms, diagnostics, treatment. Neck phlegmons.	2
5	Endemic and sporadic goiter. Thyrotoxicosis. Diffuse toxic and nodular toxic goiter. Thyroiditis, strumitis. Cancer of thyroid gland.	2
6	Diseases of the mammary gland. Acute mastitis. Dyshormonal diseases of the mammary gland. Cancer of the mammary gland.	2
7	Diseases of esophagus. Esophagus diverticulum. Esophagitis. Damages, foreign bodies of esophagus. Cardiospasm. Burns, scar narrowings of esophagus. Cancer of esophagus.	2
8	Thrombophlebitis. Phlebothrombosis. Postthrombophlebitic syndrome. Varicose disease of the lower extremities. Obliterating atherosclerosis. Obliterating endarteriitis. Raynaud disease. Lerish and Takayasu syndromes.	2
9	General herniology. Inguinal, femoral, umbilical, postoperative, diaphragmatic and other kinds of hernia. Hernia complications.	2
10	Acute appendicitis. Complications of acute appendicitis.	2
11	Gallstone disease. Acute cholecystitis. Chronic cholecystitis. Miniinvasive surgery. Acute pancreatitis.	2
12	Acute gut obstruction (impenetrability). Peritonitis.	2
13	Patients cure. Principles of formation of medical documentation in surgical department.	2
14	Cure of patients.	2
15	Defense of educational case report. Differential credit.	2

7. Themes of laboratory lessons

Not provided

8. Independent work

№ In order	Name of theme	Amount of hours
1	Classification of antibacterial preparations for mechanism and type of action for antibiotic prophylaxis and antibiotic therapy. Categories of surgical operations in depending of risk of infective complications development. Mechanism of preventive usage of antibiotics. Principles of antibiotic prophylaxis. Criteria of preparation choice for antibiotic prophylaxis. Regimens of antibiotic prophylaxis at surgical operations depending of category of operations. Principles of antimicrobial therapy of surgical infections. Empiric antimicrobial therapy of surgical infection.	10
2	Syndrome of portal hypertension (SPH): reasons, pathogenesis, classification. Clinical signs of SPH and its complications. Diagnostics, differential diagnosis. Conservative and surgical treatment. Liver transplantation. Actions of general practice doctor in cases of SPH in the patient. Patients rehabilitation.	10
3	Syndrome of diabetic foot: reasons, pathogenesis, classification. Clinical signs, variants of clinical course, complications. Diagnosis, differential diagnosis. Conservative and surgical treatment of diabetic angiopathy, contaminated foot in diabetic neuropathy, patients with multifocal atherosclerotic damages of arteries. Actions of doctor in cases of revealing a syndrome of diabetic foot in the patients. Rehabilitation of patients.	10
4	Diseases of parathyroid glands and adrenal glands. Hypoparathyroidism, ulcerogenic endocrine diseases (primary hyperparathyroidism, Zollinger – Elisson syndrome), pathogenesis, peculiarities of clinical symptoms, diagnosis and treatment. Diseases of adrenal glands: Itsenko – Cushing syndrome, pheochromocytoma, Addison disease, pathogenesis, peculiarities of clinics, diagnosis and treatment.	10
5	Social – legal aspects of transplantology. Fundamentals of transplantation immunology. Indications and contraindications to transplantation of the heart, lungs, liver, pancreatic gland, kidneys. Method of the donor selection, storage of donor organs and their transportation.	10

9. Individual tasks

During learning of discipline foresees performing of individual tasks as preparation of reviews of scientific literature and abstracts with in - depth study of actual themes for choice, creation of visual means for learning, speeches at the conferences, carrying out of individual scientific researches on students scientific workshops, on all - Ukrainian Olympiads of discipline and all - Ukrainian competition of practical skills giving of urgent aid. Creation of slides for thematic plan.

10. Tasks for independent work. Preparation and protection of educational presentation on proposed themes:

- 1) Modern methods of cardio - pulmonary resuscitation performing
- 2) Prophylaxis of neoplasms in the mammary gland
- 3) Prophylaxis and treatment of atherosclerosis
- 4) Endoscopic methods of treatment of esophagus diseases
- 5) Prophylaxis of iodine deficiency diseases of thyroid gland.

11. Methods of study

Visual: At study of discipline “Surgery” applied a complex of methods: - methods of verbal transference and auditory sensation of educational information (lectures, conversations, stories, explaining, discussions), methods of visual transference and visual acceptance of educational information (show and demonstration, slides, video recording, learning of literature and other sources of educational information, application of visual means of learning), methods of transference of educational information helping practical, working actions and tactile its acceptance (training tasks on the dummy, simulator and creative exercises, computer modeling, observation of thematic patients).

Practical methods: Patients cure, investigation of patients with surgical pathology, research of functional condition of the vital – important organs and systems in the patients, solution of clinical situation tasks and tests, mastery (acquirement) by elements of medical technique of examination on patients and waxworks, performing of cardiopulmonary resuscitation (reanimation) on waxworks.

12. Methods of control. The current control realized during carrying out of educational lessons and have a purpose - an evaluation (control) of mastering by students of learning material for 4-points (national) scale. The forms of control (evaluation) of the current educational activity is standardized and include control of theoretical and practical preparation. The standardized form of control of theoretical part includes the 5 tests tasks of different level of complexity and 2 clinical problems, on which necessary to give written answer. The level of practical preparation controlled by way of the skill performing. During evaluation of mastery (acquirement) of every theme for current educational activity to student give marks for 4 - points (national) scale. Herewith are taken into account all kinds of work, envisioned to program of discipline. The student must to get a mark for every theme for further conversion of marks to points for multipoints (200-points) scale.

Criteria of valuation of the current educational activity:

The mark «*perfectly*» get student, who took an active part in discussion of the most serious questions on topics of lesson, gave at least 90% of correct answers on standardized tests tasks, without mistakes answered on the written assignment, implemented a practical tasks.

The mark «*good (well)*» get student, who took an active part in discussion of the most serious questions on topics of lessons, gave at least 75% of correct answers on standardized tests tasks, made a separate insignificant mistakes in answers on the written tasks, performed practical tasks with insignificant mistakes.

The mark «*satisfactorily*» get student, who does not parcipitate in discussion of the most complex questions on topics, gave no less than 60% of correct answers on standardized tests tasks, made significant mistakes in answers on the written tasks, performed practical tasks with mistakes.

The mark «*unsatisfactorily*» get student, who does not parcipitate in discussion of the most complex questions of topics, gave less than 60% of correct answers on standardized tests assignments, made blunders in answers on the written tasks or did not give answers on it generally, did not fulfill practical tasks.

13. Form of concluding (final) control of the learning academic achievement: differential credit, that students pass in the last day of learning of discipline "Surgery". To differential credit of educational discipline "Surgery" are accessed a students, who got for current educational activity no less, than 72 points. Differential credit carried out in written form and includes 15 tests tasks and 2 situational problems. The correct answer for tests assignment is estimated in 4 points. In solving of situational problems: solving of situational problem without mistakes - 10 points, solving of situational problem with separated insignificant mistakes - 8 points, solving of situational problem with significant mistakes - 6 points, not a solution of situational problem - 0 points. Maximal amount of points, which student can get for concluding (final) control is 80 points, minimal amount of points – 50.

14. The scheme of scoring and distribution of points, which students get (receive)

For disciplines with form of concluding (final) control as differential credit:

Maximal amount of points, which student can get for current learning activity during study of discipline is 120 points. Minimal amount of points, which student must to get for current learning activity for admission to differential credit is 72 points.

Recalculation of the (average) middle mark for current activity to the multipoints scale for disciplines, that finishing by differential credit

4 - points scale	200 - points scale	4 - points scale	200 - points scale	4 - points scale	200 - points scale
5	120	4.16	100	3.66	88
4.95	119	4.12	99	3.62	87
4.91	118	4.08	98	3.58	86
4.87	117	4.04	97	3.54	85
4.83	116	3.99	96	3.49	84
4.79	115	3.95	95	3.45	83
4.75	114	3.91	94	3.41	82
4.7	113	3.87	93	3.37	81
4.66	112	3.83	92	3.33	80
4.62	111	3.79	91	3.29	79
4.58	110	3.74	90	3.25	78

4 - points scale	200 - points scale	4 - points scale	200 - points scale	4 - points scale	200 - points scale
4.54	109	3.7	89	3.2	77
4.5	108	3.66	88	3.16	76
4.45	107	3.62	87	3.12	75
4.41	106	3.58	86	3.08	74
4.37	105	3.54	85	3.04	73
4.33	104	3.49	84	3	72
4.29	103	3.45	83	Less than 3	Not enough
4.25	102	3.41	82		
4.2	101	3.37	81		

Points of discipline independently are converted as in scale ECTS, as in 4 - points (national) scale. Points of scale ECTS in 4 – points scale not convertible and conversely.

Points of students, who are studying for one specialty, with including of amount of points, taken from discipline, are ranked for scale ECTS as follows:

Valuation ECTS	Statistical index
A	The best 10 % of students
B	Next 25 % students
C	Next 30 % students
D	Next 25 % students
E	Last 10 % students

Ranking with conferment of marks “A”, “B”, “C”, “D”, “E” is carried out for students of this course, who are studying for one specialty and successfully finished learning of discipline. Students, who got marks FX, F (“2”) are not included to list of students, who ranked. Students with mark FX after re – taking automatically get point “E”.

Points of discipline for students, who successfully performed a program, are converted to traditional 4 – points scale for absolute criterions, which presented below in the table:

Points of discipline	Marks for 4 - points scale
From 170 to 200 points	5
From 140 to 169 points	4
From 139 points to minimal amounts of points, that student must to get	3
Lower than minimal amount of points, that student must to get	2

Mark of ECTS to traditional scale is not convertible, because scale of ECTS and four - points scale are independent. Objectivity of evaluation of educational activity of students is checked by statistical methods (coefficient of correlation between a mark of ECTS and mark for national scale).

15. Methodical providing

Teaching of discipline on lectures is provided by methodical recommendations, visual means of education (presentations, educational films), informative resource of units.

Teaching of educational discipline on practical lessons is provided by methodical directions, themes of independent and individual tasks, visual means of the learning (presentations, educational films, mannequins and other means for working off of practical skills of resuscitation, hemostasis etc.), informative resource of units, algorithms of performing of practical skills and structured algorithms of the skills control.

Independent and individual work during study of educational discipline is provided by methodical recommendations of the students independent work.

16. Recommended literature

Staple (basic)

1. Загальна хірургія: підручник / [В.П. Андющенко, В.В. Ващук, І.Д. Герич та ін.]; за ред. С.Д. Хіміч, М.Д. Желіба. - Київ: ВСВ "Медицина", 2018. - 608 с.
2. Екстрена медична допомога : підручник / [М. І. Швед, А. А. Гудима, С. М. Геряк та ін.] ; за ред. М. І. Шведа. – Тернопіль : ТДМУ, 2015. – 420 с.
3. Перша долікарська допомога: підручник/під ред. В.П. Андрющенко. Ю.Ф. Кушта, Д.В. Андрющенко – Львів: ЛНМУ, 2011. – 351 с.
4. Клінічна хірургія / за ред. Л. Я. Ковальчука, В. Ф. Саєнка, Г. В. Книшова. — Тернопіль: Укрмедкнига, 2000. — 536 с.
5. Клінічна хірургія / за ред. Л. Я. Ковальчука, В. Ф. Саєнка, Г. В. Книшова. — Тернопіль: Укрмедкнига, 2000. — 504 с.
6. Хірургічні хвороби: Підруч. для студ. вищ. мед. навч. закл. / П.Я.Чумак, А.Я. Кузнецов, М.О. Рудий, О.П. Ковальов. — Т.: ТДМУ: Укрмедкнига, 2006. — 487 с.

Additional

1. Donald C. Correll, MD Facerp. Hypotermia practice Guid // The physician assistant practice Guide. For Emergency Departments urgent care centers, and family practices. A cuta care Horizons. Jackson, TN.2012.
2. Marx, John, Ron Walls, and Robert Hockberger. Rosen's emergency medicine-concepts and clinical practice. Elsevier Health Sciences, 2013.
3. Skone, Richard, et al., eds. Managing the Critically Ill Child: A Guide for Anaesthetists and Emergency Physicians. Cambridge University Press, 2013.
4. Ковальчук Л.Я., Венгер І.К., Гоцинський В.Б. Клінічна флебологія: Навчальний посібник. — Тернопіль: ТДМУ, 2008 р. — 288 с.
5. Анестезіологія, реанімація та інтенсивна терапія невідкладних станів: Навчальний посібник. — Тернопіль: Укрмедкнига, 2003. — 324 с. ISBN 978-966-673-121-3.
6. Невідкладні стани в хірургії: підручник / І.В. Роздольський. — 2-ге вид., стер.. — К.: Медицина, 2009. — 144 с.
7. Посібник з еталонів техніки лікарських маніпуляцій і практичних навичок із загальної хірургії / В.В. Скиба, В.В. Поканевич, О.В. Іванько, А.С. Карпенко, С.Й. Хмельницький, В.Я. Стаднік, А.К. Петров; Акад. наук Вищої школи України, Київ. мед. ун-т УАНМ. — К., 2007. —141с.

17. Informative resources

1. Supreme Soviet of Ukraine <http://www.rada.kiev.ua> .
2. The Cabinet of Ministers of Ukraine <http://www.kmu.gov.ua/>.
3. Ministry of Education and Science, Youth and Sport of Ukraine <http://www.mon.gov.ua>, www.osvita.com.
4. Ministry of Ecology and Natural resources of Ukraine <http://www.menr.gov.ua/>.
5. Ministry of Ukraine of extraordinary situations problems and in cases of population protection from consequences of Chornobyl catastrophe <http://www.mns.gov.ua/>.
8. Ministry of the Health Care of Ukraine <http://www.moz.gov.ua/ua/portal/>
9. Soviet of National Security and Defense of Ukraine <http://www.rainbow.gov.ua/>.
10. Permanent Representation of Ukraine in United Nations <http://www.uamission.org/>.
11. Information - Search legal system «Regulatory acts of Ukraine (NAU)». <http://www.nau.ua>
12. American Heart Association <https://www.onlineaha.org/>
13. British Heart Foundation <https://www.bhf.org.uk/>

