

Odessa National Medical University
Faculty of Medicine №2
Department of General and Military Surgery

Syllabus course
General surgery

Content	180 / 6 ECTS credits
Semester, year of study	V-VI semesters, 3 years of study
Days, time, place	The time and place (number of the lecture hall, auditorium, laboratory, studio, etc.) of the discipline is determined in accordance with the approved schedule.
Teacher (s)	M.D., Professor, Head of the Department - Kashtalyan Mykhailo; M.D., Professor - Vansovych Vitaliy PH.D., Associate Professor - Davidov Denis PH.D., Associate Professor - Drobkov Alexander PH.D., Associate Professor - Zhuravok Alexander PH.D., Associate Professor - Tsipovyaz Serhiy PH.D., Associate Professor - Ilyina-Stognienko Victoria PH.D., Associate Professor - Kolotvin Andrey assistant - Romak Oleg PH.D., Assistant - Kwasniewski Alexander PH.D., Assistant - Kwasniewski Eugene assistant - Lenik Ruslan assistant - Bilash Oksana assistant - Vityuk Mykhailo assistant - Lunko Sergey assistant - Zashchuk Ruslan assistant - Pokhlebina Victoria assistant - Kravchenko Anatoly PH.D., Associate Professor - Shapovalov Vitaly PH.D., Associate Professor - Gerasimenko Oleg PH.D., Assistant - Samarskiy Igor Ph.D., assistant - Gerzhik Konstantin assistant - Murodyan Karen
Contact phone	8-048-728-15-73
E-mail:	surgdep@onmedu.edu.ua
Work place	Teacher's workplace is determined in accordance with the approved schedule.

Consultations	<p>Eye consultations according to the approved schedule Thursday 14.00-16.00, Saturday 10.00-14.00.</p> <p>Online consultations according to the approved schedule on the Microsoft Teams platform https://teams.microsoft.com/l/team/19%3a78714540f53b4f6880d924b8360d80a7%40thread.tacv2/conversations?groupId=44907bf7-0bf2-44d0-451a-8107-70f9ee4f6c2d</p> <p>https://teams.microsoft.com/l/team/19%3a5d6186d8ddbb47fa8a3debda84cb096%40thread.tacv2/conversations?groupId=0b5d8ec5-b669-43cc-bdad-4076dbcb03607tenddd</p>
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COMMUNICATION

Occurs in person in the classrooms and offices of the department in accordance with the approved schedule and schedule of consultations. Remotely via e-mail of teachers (... @onmedu.edu.ua) of the university postal system, as well as e-mail of the department (surgdep@onmedu.edu.ua) of the university postal system. Lectures and practical classes in the remote mode take place on the Microsoft Teams platform according to the approved schedule of classes and consultation schedule.

COURSE ANNOTATION

The subject of study of the discipline "General Surgery" are: measures for the organization of sanitary and epidemiological regime in the surgical clinic; dressing material and methods of its application; bleeding and ways of its temporary and final stop; transfusion of donor blood components, complications of blood transfusion and their prevention; basics of anesthesiology and resuscitation; clinic, diagnosis, first aid, principles of treatment for traumatic injuries; general issues of surgical infection; clinic, diagnosis, treatment, prevention of certain types of surgical infection; basics of transplantology, basics of clinical oncology; methodology of examination of a surgical patient.

Prerequisites and postrequisites of the course: The discipline "General Surgery" is based on the knowledge acquired by students in the study of such fundamental disciplines as anatomy, histology, physiology, pathological anatomy, pathological physiology, propaedeutics of internal medicine, pharmacology, and lays the foundation for traumatology and orthopedics, urology, neurosurgery, obstetrics, gynecology, anesthesiology, resuscitation and other disciplines involving the use of surgical treatments.

The purpose of teaching the discipline "General Surgery" is to master the systematic knowledge and practical skills in asepsis and antiseptics, desmurgia, transfusiology, local and general anesthesia; providing first aid for injuries, bleeding, closed soft tissue damage, bone fractures, dislocations, burns and frostbite; diagnosis, treatment and prevention of various surgical infectious processes; examination of a surgical patient and registration of results in the relevant medical documentation; formation of moral and ethical and deontological qualities in professional communication with the patient.

Forms and methods of teaching

The course will be presented in the form of lectures (30 hours) and practical classes (70 hours), organization of independent work of students (80 hours).

Teaching methods: lectures, practical classes, independent work (SRS) with active teacher consultation, individual work of students (IRS).

The content of the discipline

INTRODUCTION TO SURGERY. DESMURGY. FUNDAMENTALS OF SANITARY AND EPIDEMIC REGIME IN THE SURGICAL CLINIC. URGENT SURGICAL CONDITIONS. FUNDAMENTALS OF TRANSFUSIOLOGY, ANESTHESIOLOGY AND RESUSCITATION (CONTAINS 4 CONTENT MODULES)

Desmurgia. Antisepsis. Asepsis. Bleeding. Blood transfusion. Traumatic injuries.

Topic 1. Introduction to surgery. Hygiene in a surgical hospital. Work of the average personnel in the conditions of surgical department. Stages of development of surgery, domestic surgical schools; organization of surgical care in Ukraine. Rules of conduct in a surgical clinic. Questions of surgical deontology. The structure of the surgical clinic. The concept of hygiene in a surgical hospital to prevent the spread of nosocomial infections. Body hygiene, medical staff clothing, linen hygiene and patient clothing. Responsibilities of a sentry and a senior nurse. Post nurses. Medical documentation. Medical manipulations: thermometry, injections (technique).

Topic 2. Asepsis. Sterilization of dressings and surgical linen. Organization of work in the operating room. Surgical treatment of the surgeon's hands and operating field. Acquaintance with a technique of manufacturing of napkins, tampons, balls. Preparation of surgical linen and dressings for sterilization, methods of laying in Shimelbush boxes. Structure and operation of the autoclave, safety. Methods of preparing the surgeon's hands for surgery. Care of the surgeon's hands outside the clinic. Operating field processing. The structure of the operating unit. Types of cleaning. Methods of transporting patients to the operating room. Rules of dressing surgical underwear. Preparation of instruments for sterilization. Preparation of washing and disinfecting solutions. Tests for the quality of pre-sterilization treatment of instruments. Methods of sterilization of cutting, optical, general surgical instruments. Types of suture material. Methods of sterilization of suture material.

Topic 3. Antiseptics. Care for patients with purulent pathology. Features of care for patients with purulent pathology. Organization of purulent dressing. Features of dressings and care for patients with anaerobic infection. Methods of modern antiseptics, their characteristics. Disposal of dressings contaminated with purulent secretions.

Topic 4. Desmurgia. Concepts, definitions. Dressing material. Overlay rules. Typical bandages. Bandages on the head, neck, chest. Care for patients operated on the head, neck, chest.

Topic 5. Desmurgia. Care for patients operated on the abdominal organs, perineum, limbs. Bandages on the abdomen, perineum, limbs. Care for patients with fractures. Plaster technique. Tests for the quality of gypsum powder. Rules of gypsum equipment.

Topic 6. Surgery. Preparation of patients for operations. Care of patients in the postoperative period. The concept of surgery. Classification of surgical interventions, stages of implementation. Preoperative period, its tasks. Features of preparation of patients for planned and urgent operations. Preoperative period: skin care of the patient, sanitation of the oral cavity, shaving hair, bowel cleansing with enemas, hygiene of linen and clothing of patients. Basic principles of patient care in the postoperative period. Prevention of possible complications. Nutrition of patients.

Bleeding, blood loss. Fundamentals of blood transfusion.

Topic 7. Bleeding and blood loss. Methods of temporary and final cessation of bleeding. Definition and types of bleeding. Determination of blood loss. The mechanism of self-stopping bleeding. Methods of temporary cessation of bleeding (finger pressure, pressure bandage, twist, tourniquet). Methods of final cessation of bleeding: mechanical, physical, biological. Vascular suture. Transplantation, alloplasty.

Topic 8. The doctrine of blood. Blood transfusion tests. History of blood transfusion. Methods for determining blood group and rhesus affiliation. Determination of individual, rhesus and biocompatibility.

Topic 9. Blood transfusions, blood products, blood substitutes. Complications during blood transfusion. Indications and contraindications to blood transfusion. Ways and methods of transfusion. The mechanism of action of transfused blood and its components. Macroscopic determination of blood quality. Preparations of blood components. Surveillance of the patient during the transfusion, documentation. Groups of blood substitutes.

Topic 10. Possible errors and complications in transfusion of blood and blood components, classification, pathogenesis, clinic. Prevention of complications during blood transfusion.

General anesthesiology and resuscitation

Topic 11. Local anesthesia. Varieties of local anesthesia (layered infiltration, regional, spinal, intraosseous). Drugs for local anesthesia. Indications, contraindications. Possible complications.

Topic 12. Inhalation anesthesia. Non-inhalation anesthesia. Indications, contraindications. Possible complications. The concept of premedication. Drugs for inhalation, endotracheal anesthesia. Stages of ether anesthesia. Mask anesthesia, methods. Structure of the device for inhalation anesthesia. Types of respiratory circuits. Methods of endotracheal anesthesia. Varieties of non-inhalation anesthesia. Preparations. Methods of application. Complications of anesthesia by stages and levels.

Topic 13. Resuscitation measures in surgical patients. Urgent conditions. Intensive care and pulmonary cardiovascular resuscitation. Indications and techniques for artificial lung ventilation and indirect heart massage. Practice of pulmonary-cardiac resuscitation technique on phantom.

Injuries and injuries

Topic 14. Wounds and wound process. Prevention of infection in the wound. Treatment of pure wounds. Wounds, definition, classification. Wound structure and course of the wound process in a clean wound. Characteristics of certain types of wounds and first aid for them. Conditions under which there is an infection in the wound and their elimination. The structure of a clean wound. Primary surgical

treatment of the wound. Types of primary seams. Treatment of a clean wound in the postoperative period.

Topic 15. Infected wounds. Infected wounds. The course of the wound process in a purulent wound. Surgical treatment of a purulent wound, types of secondary sutures. Treatment of a purulent wound depending on the phase of the wound process. Types of purulent wound drainage.

Topic 16. Closed injuries of soft tissues, skull, chest, abdominal organs. The concept of injury. Clinical manifestations of closed damage to soft tissues, skull, chest, abdominal organs. Prevention of traumatic shock, pneumothorax, internal bleeding. Features of first aid and transportation of patients with these injuries.

Topic 17. Fractures. The mechanism of occurrence. Bone callus formation. First aid for fractures. Determination of fracture. Classification. The mechanism of fracture. Types of displacements of bone fragments. Bone callus formation. Clinical picture. Diagnostic methods. Providing first aid for fractures, its tasks. Means of transport immobilization. The structure of Dieterichs and Cramer tires. Providing first aid to a patient with a fracture. Overlaying tires from improvised materials, Cramer and Dieterichs.

Topic 18. Treatment of fractures in the hospital. Dislocations. The main tasks of fracture treatment in the hospital. The main types of closed and open treatment. Anesthesia. Fixation and extension methods of treatment. Indications for surgery. Method of surgical interventions for fractures. Consequences of fracture treatment. Dislocations, concepts. Classification. The mechanism of occurrence. Clinical manifestations. Differential diagnosis between fracture and dislocation. Treatment of dislocations.

Topic 19. Burns. Burn disease. Freezing. Electrotrauma. Classification of burns by depth, area, severity. Clinical manifestations of thermal burns. Symptoms of burns by chemical compounds. Radiation burns. Periods of burn disease. First aid for various types of burns. Treatment of burns in the hospital. Treatment of burns according to the course. Types of surgical interventions for burns. Freezing. Definition. Degrees. Clinical manifestations. Features of first aid to a patient with frostbite in the pre-reactive period. Treatment of frostbite in the hospital. Electrotrauma, features of a current. Providing first aid for electric shock.

Surgical infection. Mortification.

Topic 20. Surgical infection. Surgical problem of HIV. Classification. Etiology. Pathogenesis. Methods of general and local treatment.

Topic 21. Acute purulent soft tissue diseases: abscess, phlegmon, boil, carbuncle. Clinical picture. Methods of diagnosis and differential diagnosis. Surgical interventions for these diseases.

Topic 22. Acute purulent diseases of glandular organs, soft tissues: hydradenitis, mastitis, erysipelas, lymphadenitis, lymphangitis, paraproctitis. Clinical picture. Diagnosis. Treatment.

Topic 23. Purulent diseases of the hand. Panaritium, phlegmon of the hand. Definition, classification. Clinical picture. Diagnosis, Treatment.

Topic 24. Purulent bone diseases. Acute hematogenous osteomyelitis. Pathogenesis, formation of a sequestral capsule. Diagnosis, treatment tactics. Types of surgical treatment. Chronic forms of osteomyelitis, their treatment.

Topic 25. Acute specific surgical infection. To spend. Diphtheria wounds. Anthrax. Etiology, pathogenesis. Clinic. Diagnostic methods. Treatment.

Topic 26. Acute nonspecific surgical infection. Gas gangrene. Septic infection.

Topic 27. General purulent infection (sepsis). Endogenous intoxication in acute surgical infection. Current provisions of the concept of sepsis. Classification. Pathogenetic features of the course. Modern diagnostic methods. Principles of treatment. Endogenous intoxication with surgical infection. Methods of detoxification and immunocorrection. Surgical aspects of AIDS and drug addiction.

Topic 28. Chronic specific surgical diseases. Chronic specific infection: chronic tuberculosis, actinomycosis, syphilis. Etiology, clinical picture. Methods of diagnosis and treatment of these diseases.

Topic 29. Pleurisy. Peritonitis.

Fundamentals of clinical oncology

Topic 30. Tumors. Classification, clinical groups. International classification. Differential diagnosis of malignant and benign growth. Clinical picture. Modern methods of diagnosis and treatment. Features of surgery in the context of incurable disease, indications. The concept of palliative surgery.

Mortification

Topic 31. Acute and chronic disorders of arterial, venous circulation and lymph circulation. Necrosis. Gangrene. Ulcers. Fistulas. Foreign bodies. Acute and chronic disorders of arterial, venous circulation and lymph circulation. Killing, gangrene, fistula, ulcer. Types, etiology, clinic, differential diagnosis, principles of treatment. Clinic of foreign bodies of different localization, first aid.

Curation of surgical patients

Topic 32. Methods of examination and supervision of surgical patients. The structure of the medical history. Methods of examination of patients. Modern laboratory, instrumental and hardware research methods. Completeness of examination of the patient. Formulation of the diagnosis. Prescribing treatment.

Topic 33. Curation of surgical patients. Registration of educational history of the disease.

Topic 34. Curation of surgical patients. Protection of educational history of the disease.

Topic 35. Exam.

List of recommended reading

Basic:

1. S.D. Khimich, M.D. Zheliba, V.P. Andryushchenko/ General Surgery.- K.: Medicine.-2019.-536p.
2. Berezhnitsky Ya. S., Zakharash M.P., Mishalov V.G., Shidlovsky V.O/ General Surgery.- Vinnytsia:Nova knyha.-2019.-327p.
3. Selected Lectures prof. V.V. Mishchenko from Odessa State Medical University.- 2009.- 336p.
4. V. K. Gostishchev/ General Surgery. The Manual.- – M.: GEOTAR-MED, 2015. – 236p.
5. Kushnir R. Ya. General surgery /Lectures.- Ternopil, Ukrmedknyha, 2005.- 308 p

6. Surgery: Text-book for English medium medical students / S.I. Shevchenko, O.A. Tonkoglas, I.M.Lodyana, R.S. Shevchenko. – Kharkiv: KSMU, 2001. – 344p.
7. Lyapis M. A. Methods of examination of a surgical patient / M. A. Lyapis. – Ternopil: Ukrmedbook, 2004. – 156 p.
8. Butyrsky A. General surgery /The manual.- Simpheropol: publishers CGMU, 2004.- 478 p.
9. L.Ya. Kovalchuk et al. Doctor (student) – patient models of communication. Ternopil, TSMU, “Ukrmedknyha 2009, 39 p.
10. Guidelines for intensive care. Ed. AI Treschinskogo, FS Glumchera K.: High School, 2004. -582 pp.
11. Medical ambulance. For Ed. FS Glumchera, VF K. Moskalenko: "Medicine" - 2006. – 632p.
12. Eugene Braunwald, Anthony Fauci et al: Harrison's principles of internal medicine. McGraw-Hill. Medical Publishing Division, 15th edition, 2000.
13. Lawrence M. Tierney, Jr. et al: Current Medical Diagnosis and treatment 2000, Lange Medical Books, McGraw-Hill, Health Professions Division, 2000.
14. Christopher R.W. Edwards et al: Davidson's principles and practice of medicine, 17th
15. Oxford handbook of clinical surgery / Edited by G.R. Mc Latchie, D.J. Leaper, 2002.- 930 p.
16. General surgery. Selected lectures / ed. BI Dmitriev. Odessa, 1999.
17. MA Kashtalyan, VE Vansovich. Clinical examination of the patient. Odessa 2015. 113 p.

additional:

1. L.Ya.Kovalchuck, Yu.P.Spizhenko, V.F.Sayenko and others. “Hospital surgery”. Ternopil: Ukrmedknyha, 1999- 590C.
2. M.I.Kuzin “Surgical diseases” – M.: -Medicina, 2004.-611C.
3. Emergency surgery (ed. Kovalchuk LY). - Kiev: Ukrmedknyha, 2000. - 288 p.

Methods of current control : Tests of initial and final level of knowledge on the topic of practical training. Oral answer to standardized questions on the material of the current topic, previous topics and lecture material. Solving typical and atypical clinical situational problems. Control of practical skills. Control of student activity while working in small groups.

Evaluation of the success of the study of each topic of the discipline is performed on a traditional 4-point scale. The final grade for all types of student activities during the practical lesson.

Form of final control of learning success. The final control is carried out at the last control lesson in the form of an exam. Only those students who do not have academic debts and their average score for the current academic activity in the discipline is not less than 3.00 are admitted to the final certification.

The means of diagnostics of mastering the material are the control of theoretical material, the implementation of practical skills (demonstration of methods and techniques of the proposed practical skills from the above list) and the solution of the

situational problem. The maximum number of points that a student can receive during the module control is 5, and the maximum attention is paid to the demonstration of practical skills and the solution of a situational problem. The exam is credited to the student if the minimum grade is 3 points.

The grade for the discipline is 50% of the current performance (arithmetic mean of all current grades of the student) and 50% - the grade on the exam.

The average score for the discipline is translated into the traditional grade from the discipline on a 4-point scale and is regarded as the ratio of this arithmetic mean to the percentage of mastering the required amount of knowledge in this subject. The obtained average score for the discipline allows the conversion on a 200-point scale.

The results of students' academic performance are presented in the form of assessment on a national scale, 200-point and ECTS scale and have standardized generalized criteria for assessing knowledge:

national scale:

- the grade "excellent" is given to the student who systematically worked during a semester, showed during examination various and deep knowledge of a program material, is able to carry out successfully the tasks provided by the program, has mastered the maintenance of the basic and additional literature, has understood interrelation of separate sections of discipline. importance for the future profession, showed creative abilities in understanding and using educational material, showed the ability to independently update and replenish knowledge; level of competence - high (creative);

- a grade of "good" is given to a student who has shown full knowledge of the curriculum, successfully completes the tasks provided by the program, mastered the basic literature recommended by the program, showed a sufficient level of knowledge in the discipline and is able to independently update and update during further study and professional activity;

level of competence - sufficient (constructive-variable);

- the grade "satisfactory" is given to the student who has shown knowledge of the basic educational program material in the volume necessary for the further training and the subsequent work on a profession, copes with performance of the tasks provided by the program, has made separate mistakes in answers on examination and at performance of examination tasks, but has the necessary knowledge to overcome mistakes under the guidance of a researcher;

level of competence - average (reproductive);

- the grade "unsatisfactory" is given to the student who did not show sufficient knowledge of the basic educational and program material, made fundamental mistakes in performance of the tasks provided by the program, cannot use the knowledge at the further training without the teacher's help, failed to master skills of independent work;

level of competence - low (receptive-productive).

Assessment of students' independent work. Students' independent work, which is provided by the topic of the lesson along with the classroom work, is assessed during the current control of the topic in the relevant lesson. Assimilation of topics that are submitted only for independent work is checked during the final module control.

Includes:

- preparation for practical classes;
- theoretical training;
- work with workbooks;
- performance of test tasks;
- solving situational problems;
- practical skills training;
- essay writing.

Deadline and recompilation policy

During the semester the following procedure for liquidation of academic debt is determined:

Students must complete all missed classes within 2 weeks of skipping. For students who have no good reasons for no more than 2 passes, practice is accepted by the next teacher without the permission of the dean of the faculty. If a student has more than 2 passes, without the satisfaction of the dean is not allowed to study and practice. In the future, with the permission of the dean of the faculty, the student is allowed to study and practice for a period specified in the permit.

Students who missed classes, for a good reason (illness, etc.), can work them on an individual schedule, with the permission of the dean of the faculty.

Missed classes are completed by the student upon presentation of a student ticket to the next teacher in accordance with the schedule of the department: during the semester - Thursday and Saturday. No more than 1 lesson is practiced on a working day, no more than 3 lessons on Saturday.

Classes are completed if the student received a positive grade.

Academic Integrity Policy

Observance of academic integrity by students of education provides:

- ♦ independent performance of educational tasks, tasks of current and final control of learning outcomes (for persons with special educational needs this requirement is applied taking into account their individual needs and opportunities);
- ♦ links to sources of information in the case of the use of ideas, developments, statements, information;
- ♦ compliance with the law on copyright and related rights;
- ♦ providing reliable information about the results of their own (scientific, creative) activities, used research methods and sources of information.

Unacceptable in educational activities for participants in the educational process are:

- use of family or business ties to obtain a positive or higher assessment in the implementation of any form of control over learning outcomes or advantages in scientific work;
- use of prohibited auxiliary materials or technical means (cheat sheets, abstracts, headphones, telephones, smartphones, tablets, etc.) during control measures;
- passing of procedures of control of results of training by fictitious persons.

For violation of academic integrity, students may be held subject to the following academic liability:

- reduction of results of assessment of control work, examination, credit, etc .;
- re-assessment (test, exam, test, etc.);
- appointment of additional control measures (additional individual tasks, control works, tests, etc.);
- re-passing the relevant component of the educational program;
- deprivation of the right to participate in competitions for scholarships, grants, etc .;
- exclusion from the rating of applicants for an academic scholarship or accrual of penalty points in such a rating;
- deprivation of an academic scholarship;
- deductions from the University.

Mobile devices

The use of telephones and computers without the permission of the teacher is a violation of discipline, the student does not receive a grade for the lesson and is obliged to work in such a lesson. Mobile devices are only allowed to be used during online testing.

Behavior in the audience

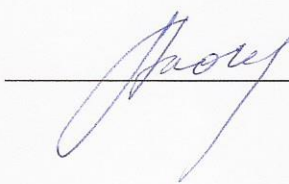
Students are required to attend all classroom classes (lectures and practical classes). Delays are unacceptable.

It is mandatory to have medical clothing (medical gown, hat, change of shoes, surgical suit, boot covers, as well as a health book if possible to acquire skills in the operating room).

Rules of conduct in the classroom include: active participation of the student, the implementation of the required minimum of educational work.

Students who want to study surgery in more depth are invited to a student group, where they will learn more about general surgery, to acquire practical skills.

M.D., Professor,
Head of the Department



Kashtalyan M.A.