

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

Syllabus course
First aid with introductory medical practice

Amount	90 years / 3 ECTS credits
Semester, year of study	III semester, 2 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:	surgery.dep@onmedu.edu.ua
Work place	The 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%3a5d6186d8ddb47fa8a3debda84cb096%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 (surgery.dep@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 "First aid with introductory medical practice" is the organization of first aid in emergencies that occur at work, at home, during traffic accidents, disasters, man-made accidents, in military situations and in acute therapeutic and surgical diseases and terminal conditions.

Prerequisites and postrequisites of the course:

normal anatomy, normal physiology, histology, pathological anatomy, pathological physiology, pharmacology

The purpose of teaching the discipline "First aid with introductory medical practice" is to master the basic theoretical principles of first aid, mastering the practical skills of providing emergency care to victims at the scene and during transportation to a medical institution.

COURSE DESCRIPTION

Forms and methods of teaching

The course will be presented in the form of lectures (10 hours), practical classes (40 hours), organization of independent work of students (40 hours).

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

The content of the discipline

Thematic plan of lectures (10 hours)

1. Introductory lecture. The value of first aid. General principles and logic of first aid in peacetime, wartime and in mass casualties. Principles of medical sorting. Diagnostic and treatment algorithms. Typical errors.

2. General principles and sequence of first aid. Manipulations and medications - their role in first aid. Fundamentals of resuscitation. Cardiopulmonary resuscitation. Terminal states. Resuscitation measures.

3. First aid for injuries and traumas. Immediate action at the site of injury. The sequence of care for mass injuries. Rules for evacuation of victims. Methods of immobilization, transportation. Typical errors.

4. Bleeding: classification, clinic, diagnosis, methods and means of temporary and final stop.

5. First aid for acute surgical and therapeutic diseases. Logic of actions in urgent obstetric conditions, first aid for acute conditions in children. Typical errors.

Thematic plan of practical classes (40 hours)

1. Cardiopulmonary resuscitation. Resuscitation measures. Desmurgia. Asepsis and antiseptics. (10 years - 5 topics)

1. Cardiopulmonary resuscitation (CPR). Anatomical and physiological bases of respiration and blood circulation. The concept of causes, symptoms and diagnosis of clinical, biological and social death. General rules of cardiopulmonary resuscitation. Technique of closed heart massage and artificial lung ventilation (Heimlich reception, body position, head and jaw to ensure airway patency, mouth-to-mouth ventilation, mask-mouth, Ambu bag, masks, oxygen delivery technique, cricothyropuncture). Indications and contraindications to CPR. Algorithms (protocols) CPR of adults and children for one and two resuscitators. Criteria for CPR effectiveness. Complications and their prevention. Concepts, causes, signs and diagnosis of acute respiratory and heart failure, rules of first aid.

2. Desmurgia. Characteristics of dressings. Bandages are bandage, glue, scarf, plaster. Types of bandages: protective, pressing, medical, corrective. Rules and techniques of bandaging the head and chest.

3. Desmurgia. Technique of applying bandages on the abdomen and chest.

4. Desmurgia. Bandages on extremities: circular, spiral, tortoiseshell, on a finger and fingers of a brush, spike-shaped, octagonal on a brush, Dezo.

5. Asepsis and antiseptics (Definitions) types of antiseptics. Preservation of the principles of asepsis and antiseptics in first aid.

2. Open damage. Wounds. Definition, Classification, danger of certain types of wounds (4 hours - 2 topics).

6. Wounds. Concept. Methods of wound assessment (neurovascular component, area and depth of tissue loss, degree of contamination, localization). First aid for various types of wounds.

7. Wounds. Bitten wounds - principles of treatment, rules of registration and observation. Prevention of gas gangrene, tetanus and rabies. Crash syndrome: causes, manifestations, dangers, tactics of first aid.

3. Bleeding and blood loss (4 hours - 2 topics).

8. Bleeding. Definition, classification of bleedings. Methods of temporary cessation of bleeding (Wound pressure, lifting + pressure, finger pressure of projection points, splinting, tourniquet, compression bandage, clamp application, nasal tamponade): technique, indications, against indications, typical errors. Rules of asepsis and antiseptics for bleeding. Ultimate methods of stopping bleeding.

9. Hemorrhagic shock. Concepts, causes, manifestations, Algovera index, first aid. Features, dangers and clinical signs of internal bleeding. First aid for internal bleeding. Transfusion of blood, blood components and blood substitutes.

4. Injuries and injuries (12 hours - 6 topics).

10. General provisions. Classification, mechanisms, types of injuries. Examination of the injury site

11. Rules and methods of transport immobilization. Types of transportation. Selection of the victim from a sitting and lying position. Carrying on a stretcher and arms. Rules of carriage, types of bandages and means used for transport immobilization. Injuries in children: Epidemiology and mechanism, anatomical and physiological features. Principles of examination and first aid. Basics of caring for the injured. Septic and antiseptic measures.

12. Bone fracture. Diagnosis and first aid. The sequence of medical actions for complicated fractures. Diagnosis of dislocations, first aid, traumatic amputations: first aid. Closed soft tissue injuries: classification, diagnosis, first aid.

13. Head and spine injury. Head injury: mechanism of injury. Methods of examination of the injured. Assessment of the importance of head injury: history, mechanism, vital signs, Glasgow scale, physical examination. Diagnostic signs of different types of injury. Tactics of emergency care: Primary examination, immobilization, transportation, secondary examination. First aid errors. Spinal cord injury: Mechanism of injury. Methods of examination of the spine. Spinal shock, tetra- and paraplegia. Tactics of emergency care: primary examination, immobilization, transportation, secondary examination. Dynamic observation. First aid errors.

14. Trauma of the chest, abdomen and pelvis. Chest injuries: the mechanism of injury. Methods of examination of the chest. Open, closed and valvular pneumothorax, massive hemothorax, cardiac tamponade, running chest, heart injury, airway obstruction. Principles of hospital care. First aid errors. Injuries of the abdominal cavity and pelvis: the mechanism of injury. Methods of examination. Complications, for thunderstorms for life (intra-abdominal bleeding, peritonitis, evisceration).

15. Burns, frostbite, electric shock. Methods of examination of burns (determination of depth, area, severity of burns). Principles of resuscitation and first aid with burns and electric shocks. Inhalation lesions: diagnosis and first aid. Chemical, radiation and radiation burns: features of diagnosis and first aid.

5. Acute diseases and poisoning (6 hours - 3 topics).

16. Poisoning. Conditions, classification, hazards. Assessment of the patient's condition - the function of respiration, cardiovascular system, consciousness, gathering the necessary information. Mushroom poisoning. First aid for poisoning: gastric lavage, antidotes, sorbents, some medications. Poisonous animal and insect bites: emergency care. Caring for a patient who has suffered poisoning.

17. Acute "therapeutic" diseases of the cardiovascular and respiratory systems. Myocardial infarction, acute cardiovascular failure, cardiogenic shock, arrhythmia, hypertensive crisis. An attack of bronchial asthma. Principles of diagnosis and first aid. Allergies, anaphylaxis, allergens. Clinical manifestations and variants of the course (lightning, asthma, cardiac, neurological, abdominal, cutaneous). Pulmonary edema. Quincke's edema. First aid.

18. Shock. Collapse. Coma. Disorders of consciousness, shock, collapse, coma: Definition, etiology, assessment of the patient's condition (initial examination, history of physical examination). Pre-hospital care for insects of unclear etiology: head injuries, diabetes (hypoglycemia, hyperglycemia, ketoacidosis), cardiovascular diseases (cardiogenic shock, arrhythmias), convulsions (epilepsy), stroke, hypo- and hyperthermia, anaphylaxis (drugs, food bites), poisoning (ingestion, carbon monoxide).

6. Acute surgical diseases of the abdominal cavity (4 hours - 2 topics).

19. "Acute stomach". Diseases grouped by the term "acute abdomen": acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and 12 hollow cats, pinched hernia, intestinal obstruction. Causes, manifestations of pre-hospital diagnosis, first aid, principles of treatment at the hospital stage. Typical first aid mistakes

20. Differential credit.

Topics for self-study (40 hours)

1. Emergencies in obstetrics. Anatomical and physiological features of pregnant women. Pregnancy. Bleeding, Preeclampsia, eclampsia, uterine rupture, placental abruption, umbilical cord prolapse, threatened abortion, ectopic pregnancy, trauma - recognition, first aid. Transportation of pregnant women. Childbirth. Neonatal resuscitation. Physiology of childbirth. Precursor of childbirth, stages and mechanism of childbirth. Acceptance of normal spontaneous births: material support, treatment of the umbilical cord and the child.

2. Emergencies in children. Anatomical and physiological features of children. Respiratory obstruction, asthma, epiglottitis, croup, bronchitis, febrile convulsions, hyperthermia - diagnosis and first aid. Features of resuscitation of children.

3. Infectious diseases. Principles of first aid for infectious diseases (meningitis, botulism, cholera, diphtheria, AIDS): Diagnostic signs. Principles of hygiene, personal protection and safety.

4. Acute mental disorders and crises. Psychosis, mood disorders, manic-depressive psychosis, anxiety. Types of emergency response. General principles and methods of behavior with patients with acute mental disorders. Principles of immobilization of patients and first aid.

5. Ecogenic factors, natural disasters. Definitions, causes, epidemiology. Physiology of thermoregulation. Hypothermia, hyperthermia, sunstroke, heat stroke, drowning in fresh and salt water, general cooling, freezing, lightning strikes, intoxication from insect bites, snakes, spiders, marine invertebrates - clinical manifestations and first aid.

List of recommended reading

MAIN:

1. 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.

2. Перша долікарська допомога: підручник/під ред. В.П. Андрющенко. Ю.Ф. Кушта, Д.В. Андрющенко – Львів: ЛНМУ. - 2011. – 351 с.

3. Екстрена медична допомога (гострі серцеві стани) / Г.Г. Рошчін, О.М. Пархоменко, В.О. Крилюк та ін.: за ред. Г.Г. Рошчина. – К.: ТОВ “НВП “Інтерсервіс”, 2011. - 159 с.

4. Дужий І.Д. Перша допомога при невідкладних станах : навчальний посібник / І.Д. Дужий, О.В. Кравець ; Сумський державний університет. – Суми : Сумський державний університет, 2014. – 212 с. : іл., табл.

5. Екстрена медична допомога: догоспітальний етап, алгоритми маніпуляції (базовий рівень). / Г.Г. Рошчін, А.А. Гудима, В.Ю. Кузьмін та ін. - К., 2012. - 84 с.

6. Медицина невідкладних станів: швидка і невідкладна медична допомога / І.С. Зозуля, А.В. Вершигора, В.І. Боброва та ін.; за ред. І. С. Зозулі. - К.: ВСВ “Медицина”, 2012. - 728 с.

7. Тарасюк В.С., Матвійчук М.В. Паламар М.В., Поляруш В.В., Корольова Н.Д., Подолян В.М. Малик С.Л., Кривецька Н.В. Перша медична (екстрена) допомога з елементами тактичної медицини на до госпітальному етапі в умовах надзвичайних ситуацій. – К.: Медицина, 2015.

8. Алгоритми надання невідкладної допомоги при критичних станах / За ред. І. І. Тітова. – Вінниця: Нова Книга, 2012. – 344 с.

ADDITIONAL

1. Donald C. Correll, MD Facer. Hypothermia 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. Schneider, Andreas, Erik Popp, and Bernd W. Böttiger. "Cardiopulmonary Resuscitation." Surgical Intensive Care Medicine. Springer International Publishing, 2016. 153-166.

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, lectures and previous topics. 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 permission 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 work 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 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.

M.D., Professor,
Head of the Department



Kashtalyan M.A.