



MINISTRY OF SCIENCE AND HIGHER EDUCATION AND OF THE RUSSIAN FEDERATION  
Federal state autonomous educational institution  
of higher education  
«Far Eastern Federal University»  
(FEFU)

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**SCHOOL OF BIOMEDICINE**

«СОГЛАСОВАНО»  
Руководитель ОП  
«Лечебное дело»

  
В.В. Усов  
«09» июля 2019 г.



«УТВЕРЖДАЮ»  
Директор Департамента  
клинической медицины  
  
Б.И. Гельцер  
«09» июля 2019 г.

**WORKING PROGRAM OF THE DISCIPLINE**

**Emergency assistance in simulated conditions**

**Specialty 31.05.01 "General Medicine"**

**Form of training - full-time**

course 6 semester C  
lectures are not provided  
practical classes 54 hours.  
laboratory work is not provided  
including using MAO lek. 0 hour/ex. 0 hour  
total classroom hours 54 hours.  
including using MAO 0 hour.  
independent work 18 hours.  
term paper / term project are not provided  
credit per semester

The work program "Emergency Assistance in Simulated Conditions" was compiled in accordance with the requirements of the federal state educational standard of higher education (specialist level), approved by order of the Ministry of Education and Science of the Russian Federation No. 95 dated February 9, 2016. The work program of the discipline was discussed at a meeting of the Department of Fundamental and Clinical Medicine. Protocol No. 8 of July 09, 2019

Compiled by: Candidate of Medical Sciences, Associate Professor Tarasov A.E.

1. Рабочая программа пересмотрена на заседании Департамента/кафедры/отделения (реализующего дисциплину) и утверждена на заседании Департамента/кафедры/отделения (выпускающего структурного подразделения), протокол от «\_\_\_» 202\_\_г. №
2. Рабочая программа пересмотрена на заседании Департамента/кафедры/отделения (реализующего дисциплину) и утверждена на заседании Департамента/кафедры/отделения (выпускающего структурного подразделения), протокол от «\_» 202\_\_г. №
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## ANNOTATION

The discipline "Emergency assistance in simulated conditions" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 6th year in the semester. The total labor intensity of the discipline is 72 hours, 2 credits. The curriculum provides for practical classes (54 hours) and independent work of the student (18 hours). The study of the discipline ends with a test.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

**The purpose** of mastering the discipline is to improve the students' professional competencies in providing emergency and urgent care to the patient in simulated conditions in accordance with the federal state educational standard.

**Objective:** To form the student's professional competencies that correspond to the labor functions of a doctor:

- on examination of patients in a condition requiring emergency and urgent care;
- to carry out preventive measures, sanitary and educational work to prevent conditions that require the provision of medical care in an emergency and emergency form; control of their efficiency;
- according to the assessment of the safety of the patient, medical personnel and the personal safety of the doctor when assisting the patient;
- on the use of special equipment for diagnosing the patient's condition in accordance with the current procedures for the provision of medical care, clinical recommendations on the provision of medical care, taking into account the standards of medical care;
- for cardiopulmonary resuscitation and defibrillation in case of cardiac arrest under simulated conditions (on a mannequin).

As a result of studying this discipline, students form the following general professional / professional competencies (elements of competencies).

Code and wording of competence	Code and wording of competence	
GPC-11 readiness for the use of medical devices provided for by the procedures for the provision of medical care	Knows	main parameters and characteristics of specialized equipment and medical devices used to diagnose patient conditions requiring emergency medical care
	Can	use specialized equipment and medical products for cardiopulmonary resuscitation and defibrillation in case of cardiac arrest, to provide emergency care for injuries, fractures, bleeding
	Possesses	methods of using specialized equipment and medical devices for cardiopulmonary resuscitation and emergency care.
PC-3 ability and readiness to carry out anti-epidemic measures, organize the protection of the population in foci of especially dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies	Knows	etiology, pathogenesis, pathomorphology, clinical picture, course, outcome of emergency and urgent conditions requiring emergency medical care;
	Can	diagnostics and differential diagnostics of the main emergency and urgent syndromes and diseases; operating procedures for the provision of medical care
	Possesses	diagnose and provide medical care for the following life-threatening conditions in accordance with the current procedures for the provision of medical care

## I. STRUCTURE AND CONTENT OF THE THEORETICAL PART OF THE COURSE

Not included in the curriculum.

## II. STRUCTURE AND CONTENT OF THE PRACTICAL PART OF THE COURSE (54 HOURS)

### Section I. Cardiopulmonary resuscitation (24 hours)

Topic 1. Organization and current state of the ambulance service in the Russian Federation (2 hours).

- issues of organization and functioning of the EMS service,
- actual problems of the service,
- methodology for quality assurance in emergency care,
- legal aspects.

Topic 2. Diagnosis of clinical death. The concept of basic and advanced resuscitation (4 hours).

- clinical death,
- methods of cardiopulmonary resuscitation at the prehospital stage,
- biological death,
- indications for termination of resuscitation,
- legal norms.
- classification of emergency conditions.
- clinical picture, typical complaints and symptoms, complications, clinic options,

Topic 3. Provision of emergency and medical care in case of circulatory arrest (28 hours).

- study of the algorithm of basic CPR in adults and children.
- training in the use of the "triple Safar technique".
- practicing the skills of indirect heart massage.
- training in the use of an automatic external defibrillator.
- practicing breathing skills "mouth to mouth" and with an Ambu bag.
- practicing cardiopulmonary resuscitation skills on an adult patient mannequin with computer recording of the results:

- 1) compression depth;
- 2) the position of the hands during compressions;
- 3) release of hands between compressions;
- 4) frequency of compressions;
- 5) tidal volume;
- 6) inspiratory rate.

**Section II. Emergency medical care (20 hours).**

Topic 1. Immobilization of the lower limb with a transport splint (4 hours).

- classification of fractures,
- actions in assisting a patient with a fracture of the lower limb,
- practicing the skills of using splints in case of an open fracture of the leg bones.

Topic 2. Immobilization of the upper limb with a transport splint (8 hours).

- actions in assisting a patient with a fracture of the upper limb,
- practicing the skills of using splints in case of a closed fracture of the humerus.

Topic 3. Arterial bleeding (4 hours).

- classification,
- clinical picture,
- the main ways to stop external bleeding (temporary and final),
- rules for applying a hemostatic tourniquet,
- criteria for the correct application of the tourniquet.

### **III. EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR STUDENTS' INDEPENDENT WORK**

Educational and methodological support for independent work of students in the discipline "emergency assistance in simulated conditions" is presented in appendix 1 and includes:

A schedule for the implementation of independent work in the discipline, including approximate norms of time for completion for each task;

Characteristics of tasks for independent work of students and methodological recommendations for their implementation;

Requirements for the presentation and execution of the results of independent work;

Criteria for evaluating the performance of independent work.

#### IV. CONTROL OF ACHIEVEMENT OF COURSE OBJECTIVES

Code and wording of competence	Stages of competence formation			
Controlled sections/topics of disciplines	Codes and stages of formation of competencies	Evaluation tools		
		Current control	Intermediate assessment/exam	
Section I. Cardiopulmonary resuscitation Section II. Emergency medical care	GPC-11 readiness for the use of medical devices provided for by the procedures for the provision of medical care	Knows	US-1 Interview	Questions to credit
		Can	PW-1 Test	PW-1 Test
		Possesses	US-3 Report	US-2
Section I. Cardiopulmonary resuscitation Section II. Emergency medical care	PC-3 ability and readiness to carry out anti-epidemic measures, organize the protection of the population in foci of especially dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies	Knows	US-1 Interview	Questions to credit
		Can	PW-1 Test	PW-1 Test
		Possesses	US-3 Report	US-2

#### V. LIST OF EDUCATIONAL LITERATURE AND INFORMATION AND METHODOLOGICAL SUPPORT OF THE DISCIPLINE

##### Main literature

1. Levchuk I.P., Disaster Medicine. Course of lectures [Electronic resource]: textbook / Levchuk I.P., Tretyakov N.V. - M. : GEOTAR-Media, 2015. - 240 p. - ISBN 978-5-9704-3347-8 <http://www.studentlibrary.ru/book/ISBN9785970433478.html>
2. Rogozina I.V., Disaster Medicine [Electronic resource] / I.V. Rogozina - M. : GEOTAR-Media, 2014. - 152 p. - ISBN 978-5-9704-2936-5 <http://www.studentlibrary.ru/book/ISBN9785970429365.html>
3. Makolkin V.I., Internal diseases [Electronic resource]: textbook / Makolkin V.I., Ovcharenko S.I., Sulimov V.A. - 6th ed., Rework. and additional M. :

GEOTAR-Media, 2015. - 768 p. - ISBN 978-5-9704-3335-5 <http://www.studentlibrary.ru/book/ISBN9785970433355.html>

### **Additional literature**

1. Local anesthesia [Electronic resource]: a practical guide / F. Mulroy Michael [et al.]. Electron. text data.— M.: BINOM. Knowledge Laboratory, 2015.— 401 p.— Access mode: <http://www.iprbookshop.ru/37056>
2. General surgery [Electronic resource]: textbook / VK Gos-tishchev. - 5th ed., revised. and additional - M. : GEOTAR-Media, 2015. - <http://www.studmedlib.ru/book/ISBN9785970432143.html>
3. Pathological anatomy [Electronic resource]: textbook / A. I. Strukov, V. V. Serov; ed. V. S. Paukova. - 6th ed., revised. and additional - M. : GEOTAR-Media, 2015. - <http://www.studmedlib.ru/book/ISBN9785970435519.html>
4. Disaster medicine. A set of tests for self-control: Educational and methodological manual / Akulin I.M., Pilnik N.M., Bigunets V.D. - St. Petersburg: St. Petersburg State University, 2016. - 107 p.: ISBN 978-5-288-05803-5 <http://znanium.com/catalog/product/1000466>

### **Electronic resources**

1. Scientific and practical society anesthesiologists and resuscitators of St. Petersburg <https://spboar.ru/>
2. All-Russian Federation of Anesthesiologists-Resuscitators <http://www.far.org.ru/recomendation>
3. Journal "Intensive Care" <http://www.icj.ru/>
4. National Resuscitation Council <https://www.rusnrc.com/links>
5. European Resuscitation Council <https://www.rusnrc.com/--2015->
6. MED-EDU.ru - Medical portal / <http://www.medvideo.org/surgery/>

### **Regulatory and methodological documents**

1. Order of the Ministry of Health and Social Development of Russia dated 04.05.2012 No. N 477n (as amended on 11/07/2012) "On approval of the list of



conditions in which first aid is provided, and the list of first aid measures" (Registered in the Ministry of Justice of Russia on 05/16/2012 N 24183)

2. Federal Law "On the fundamentals of protecting the health of citizens in the Russian Federation" dated 21.11.2011 N 323-FZ, article 31.

## VI. LIST OF INFORMATION TECHNOLOGIES AND SOFTWARE

The location of the computer equipment on which the software is installed, the number of jobs	Software List
Computer class of the School of Medicine aud. M723, 15 jobs	Windows Seven Enterprise SP3x64Operating system Microsoft Office Professional Plus 2010 an office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - software for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - a software package for creating and viewing electronic publications in PDF format; WinDjView 2.0.2 is a program for recognizing and viewing files with the same name format DJV and DjVu.

## VII. METHODOLOGICAL INSTRUCTIONS FOR MASTERING THE DISCIPLINE

### **Practical training in the discipline "Emergency assistance in simulated conditions"**

Practical exercises - a collective form of consideration of educational material. Seminars, which are also one of the main types of practical classes designed for in-depth study of the discipline, taking place in an interactive mode. In the classroom on the topic of the seminar, questions are sorted out and then, together with the teacher, a discussion is held, which is aimed at consolidating the material under discussion, developing the skills to debate, develop independence and critical thinking, the ability of students to navigate large information flows, develop and defend their own position on problematic issues of academic disciplines. As active learning

methods, they are used in practical classes: a press conference, a detailed conversation, a debate. A detailed conversation involves preparing students for each issue of the lesson plan with a single list of recommended mandatory and additional literature for all. Reports are prepared by students on a pre-proposed topic.

Disputing in a group has a number of advantages. The dispute can be called by the teacher during the lesson or planned in advance by him. In the course of the controversy, students form their resourcefulness, the speed of mental reaction.

Press conference. The teacher instructs 3-4 students to prepare short reports. Then one of the members of this group makes a report. After the presentation, students ask questions, which are answered by the speaker and other members of the expert group. Based on questions and answers, a creative discussion unfolds with the teacher.

The main types of independent work of students are work with literary sources and methodological recommendations on the history of medicine, bioethical problems, Internet resources for a deeper acquaintance with certain problems in the development of medicine and bioethics. The results of the work are drawn up in the form of abstracts or reports, followed by a discussion. Topics of abstracts correspond to the main sections of the course.

To conduct current control and intermediate certification, oral surveys and control tasks are carried out.

## VII. LOGISTICS AND TECHNICAL SUPPORT OF THE DISCIPLINE

Name of equipped premises and premises for independent work	List of main equipment
Computer class of the School of Medicine aud. M723, 15 jobs	Motorized Screen 236*147cm Trim Screen Line; Projector DLP, 3000 ANSI Lm, WXGA 1280x800, 2000:1 EW330U Mitsubishi; Subsystem of specialized equipment fastenings CORSA-2007 Tuarex; Video switching subsystem: DVI DXP 44 DVI Pro Extron matrix switcher; DVI over twisted pair cable DVI 201 Tx/Rx Extron; Subsystem of audio switching and sound amplification; acoustic system for ceiling mounting SI 3CT LP Extron; Extron DMP 44

	<p>LC digital audio processor; extension for IPL T CR48 control controller; wireless LANs for students are provided with a system based on 802.11a/b/g/n 2x2 MIMO(2SS) access points.</p> <p>HP ProOpe 400 All-in-One 19.5 (1600x900), Core i3-4150T, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, DVD+/-RW, GigEth, Wi-Fi, W, usb kbd/ mse, Win7Pro(64-bit)+Win8.1Pro(64-bit), 1-1-1 Wty</p>
<p>Reading rooms of the FEFU Scientific Library with open access to the fund (building A - level 10)</p>	<p>HP ProOpe 400 All-in-One 19.5 (1600x900), Core i3-4150T, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, DVD+/-RW, GigEth, Wi-Fi, BT, usb kbd/ mse, Win7Pro (64-bit)+Win8.1Pro(64-bit), 1-1-1 Wty Internet access speed 500 Mbps. Workplaces for people with disabilities are equipped with Braille displays and printers; equipped with: portable devices for reading flat-print texts, scanning and reading machines, a video enlarger with the ability to regulate color spectra; magnifying electronic loupes and ultrasonic markers</p>
<p>690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, Ayaks village, 10, aud. M 421</p>	<p>Multimedia audience: Monoblock Lenovo C360G-i34164G500UDK; Projection screen Projecta Elpro Electrol, 300x173 cm; Multimedia projector, Mitsubishi FD630U, 4000 ANSI Lumen, 1920x1080; Mortise interface with automatic cable retraction system TLS TAM 201 Stan; Document camera Avervision CP355AF; Sennheiser EW 122 G3 UHF lavalier radio system as part of a wireless microphone and receiver; LifeSizeExpress 220-Codeonly-Non-AES video conferencing codec; Network video camera Multipix MP-HD718; Two LCD panels 47", Full HD, LG M4716CCBA; Audio switching and sound amplification subsystem; centralized uninterruptible power supply</p>
<p>690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, Ayaks village, 10, aud. M 508</p>	<p>Multimedia audience: Accreditation and simulation center: Female pelvis training model for demonstrating and practicing childbirth skills, complete with accessories Female pelvis training model for demonstrating and practicing midwifery skills</p>



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**SCHOOL OF BIOMEDICINE**

**EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR STUDENTS'  
INDEPENDENT WORK**  
IN THE DISCIPLINE "EMERGENCY ASSISTANCE IN SIMULATED CONDITIONS"  
SPECIALTY 31.05.01 - GENERAL MEDICINE  
FULL-TIME TRAINING FORM

Vladivostok  
2018

### **Independent work includes:**

1. library and homework with educational literature,
2. preparation for a seminar, debate,
3. performance of an individual task,
4. preparation of an abstract, presentation.

### **Guidelines for writing and designing an abstract**

An abstract is a student's creative activity, which reproduces in its structure research activities to solve theoretical and applied problems in a certain branch of scientific knowledge. Because of this, term paper is the most important component of the educational process in higher education.

The abstract, being a model of scientific research, is an independent work in which the student solves a problem of a theoretical or practical nature, applying the scientific principles and methods of this branch of scientific knowledge. The result of this scientific search can have not only subjective, but also objective scientific novelty, and therefore can be presented for discussion in the form of a report or message at a scientific and practical conference, as well as in the form of a scientific article.

The essay is carried out under the guidance of a teacher and involves the acquisition of skills in building business cooperation based on ethical standards for the implementation of training. Purposefulness, initiative, disinterested cognitive interest, responsibility for the results of one's actions, conscientiousness, competence are personality traits that characterize the subject of education, corresponding to the ideals and norms of modern higher education.

An abstract is an independent educational and research activity of a student. The manager provides advisory assistance and evaluates the process and results of activities. He provides an approximate topic for abstracts, clarifies the problem and the topic of research together with the student, helps to plan and organize research activities, appoints the time and the minimum number of consultations. The teacher accepts the text of the abstract for verification at least two days before the performance.

Traditionally, a certain structure of the abstract has developed, the main elements of which, in the order of their location, are the following:

1. Title page.
2. Task.
3. Table of contents.
4. List of symbols, symbols and terms (if necessary).
5. Introduction.
6. The main part.
7. Conclusion.
8. Bibliographic list.
9. Applications.

The title page indicates: educational institution, graduating department, author, supervisor, research topic, place and year of the abstract.

The title of the abstract should be as short as possible and fully correspond to its content.

The table of contents (content) reflects the names of the structural parts of the abstract and the pages on which they are located. It is advisable to place the table of contents at the beginning of work on one page.

The presence of a detailed introduction is a mandatory requirement for the abstract. Despite the small volume of this structural part, its writing causes considerable difficulties. However, it is a well-executed introduction that is the key to understanding the entire work and testifies to the professionalism of the author.

Thus, the introduction is a very important part of the abstract. The introduction should begin with a justification of the relevance of the chosen topic. When applied to the abstract, the concept of "relevance" has one feature. From how the author of the abstract knows how to choose a topic and how correctly he understands and evaluates this topic from the point of view of modernity and social significance, characterizes his scientific maturity and professional readiness.

In addition, in the introduction it is necessary to isolate the methodological basis of the abstract, to name the authors whose works formed the theoretical basis of the study. A review of the literature on the topic should show the author's thorough acquaintance with specialized literature, his ability to systematize sources,

critically examine them, highlight the essential, determine the main thing in the current state of study of the topic.

The introduction reflects the significance and relevance of the chosen topic, defines the object and subject, purpose and objectives, and the chronological framework of the study.

The introduction ends with a statement of general conclusions about the scientific and practical significance of the topic, the degree of its study and availability of sources, and the formulation of a hypothesis.

In the main part, the essence of the problem is stated, the topic is revealed, the author's position is determined, factual material is given as an argument and for illustrations of the put forward provisions. The author needs to show the ability to consistently present the material while simultaneously analyzing it. Preference is given to the main facts, rather than small details.

The abstract ends with the final part, which is called the "conclusion". Like any conclusion, this part of the abstract plays the role of a conclusion determined by the logic of the study, which is in the form of a synthesis of the scientific information accumulated in the main part. This synthesis is a consistent, logically coherent presentation of the results obtained and their relationship with the general goal and specific tasks set and formulated in the introduction. It is here that the so-called "inferential" knowledge is contained, which is new in relation to the original knowledge. The conclusion may include suggestions of a practical nature, thereby increasing the value of theoretical materials.

So, in the conclusion of the abstract should be: a) the conclusions on the results of the study are presented; b) theoretical and practical significance, novelty of the abstract; c) the possibility of applying the results of the study is indicated.

After the conclusion, it is customary to place a bibliographic list of used literature. This list is one of the essential parts of the abstract and reflects the independent creative work of the author of the abstract.

The list of sources used is placed at the end of the work. It is issued either in alphabetical order (by the author's last name or the title of the book), or in the order

in which references appear in the text of the written work. In all cases, the full title of the work, the names of the authors or the editor of the publication, if a team of authors participated in writing the book, data on the number of volumes, the name of the city and publishing house in which the work was published, the year of publication, the number of pages are indicated.

### **Guidelines for preparing presentations**

To prepare a presentation, it is recommended to use: PowerPoint, MS Word, AcrobatReader, LaTeX beamer package. The simplest presentation program is Microsoft PowerPoint. To prepare the presentation, it is necessary to process the information collected when writing the abstract.

The sequence of preparation of the presentation:

1. Clearly state the purpose of the presentation.
2. Determine what will be the format of the presentation: live performance (then how long will it be) or email (what will be the context of the presentation).
3. Select all the content for the presentation and build a logical chain of presentation.
4. Identify key points in the content of the text and highlight them.
5. Determine the types of visualization (pictures) to display them on slides in accordance with the logic, purpose and specifics of the material.
6. Choose the design and format the slides (the number of pictures and text, their location, color and size).
7. Check the visual perception of the presentation.

Visualization types include illustrations, images, diagrams, tables. An illustration is a representation of a real-life visual range. Images, unlike illustrations, are metaphors. Their purpose is to evoke emotion and create an attitude towards it, to influence the audience. With the help of well-thought-out and presented images, information can remain in a person's memory for a long time. The diagram is a visualization of quantitative and qualitative relationships. They are used to convincingly demonstrate data, for spatial reasoning in addition to logical reasoning. A table is a



concrete, visual and accurate display of data. Its main purpose is to structure information, which sometimes makes it easier for the audience to perceive the data.

### Practical Tips for Preparing a Presentation

- ✓ printed text + slides + handouts are prepared separately;
- ✓ slides - visual presentation of information, which should contain a minimum of text, a maximum of images that carry a semantic load, look clear and simple;
- ✓ textual content of the presentation - oral speech or reading, which should include arguments, facts, evidence and emotions;
- ✓ recommended number of slides 17-22;
- ✓ obligatory information for the presentation: topic, surname and initials of the speaker; message plan; brief conclusions from what has been said; list of sources used;

handouts – should provide the same depth and scope as a live performance: people trust what they can carry with them more than disappearing images, words and slides are forgotten, and handouts remain a constant tangible reminder; it is important to hand out handouts at the end of the presentation; handouts should be different from slides, should be more informative.

### **Guidelines for preparing for practical exercises**

Control of the results of independent work is carried out in the course of practical exercises, oral surveys, interviews, solving situational problems, tests, including through testing.

1. The student must prepare for the practical lesson: repeat the lecture material, read the necessary section on the topic in the textbook.
2. The lesson begins with a quick frontal oral survey on a given topic.
3. In the classroom, students work with lecture notes, slides.
4. For classes, you must have a notebook for recording theoretical material, a textbook.
6. At the end of the lesson, homework is given on a new topic and it is proposed to make tests on the material covered, which were studied in the lesson (summary).

7. Performances and activity of students for the lesson are evaluated by the current assessment.

### **Guidelines for the preparation of the report**

1. Independent choice by the student of the topic of the report.
2. Selection of literary sources on the chosen topic from the recommended basic and additional literature offered in the work program of the discipline, as well as work with the resources of the Internet information and telecommunication network indicated in the work program.
3. Working with the text of scientific books, textbooks is not only about reading the material, it is also necessary to analyze the selected literature, compare the presentation of the material on the topic in different literary sources, select the material in such a way that it reveals the topic of the report.
3. The analyzed material is outlined, most importantly, it should not be just a conscientious rewriting of source texts from selected literary sources without any comments and analysis.
4. Based on the analysis and synthesis of the literature, the student draws up a report plan, on the basis of which the text of the report is prepared.
5. The report should be built logically, the material is presented in a coherent, coherent and consistent manner, conclusions are drawn. It is desirable that the student could express his opinion on the formulated problem.
6. The report is given 7-10 minutes. The report is told, not read on paper.

### **Guidelines for working with literature**

1. It is necessary to make an initial list of sources. The list of references recommended in the work program of the course can become the basis. For the convenience of work, you can create your own file of selected sources (name of authors, title, characteristics of the publication) in the form of a working file on a computer. Such a card file has the advantage, because it allows you to add sources, replace one with another if necessary, remove those that are not relevant to the topic. The initial list of references can be supplemented using the electronic catalog of the FEFU library, and do not hesitate to contact the library staff for help.

2. When working with literature on a particular topic, one must not only read, but also learn the method of studying it: make a brief summary, an algorithm, a diagram of the material read, which allows you to understand and remember it faster. It is not recommended to rewrite the text verbatim.

### **Criteria for evaluating an oral presentation**

An oral report on the discipline "Reproductive Health" is evaluated by a point system: 5, 4, 3.

"5 points" is given to the student if he expressed his opinion on the formulated problem, argued it, accurately defining its content and components, is able to analyze, summarize the material and draw the right conclusions using basic and additional literature, freely answers questions, which indicates that that he knows and owns the material.

"4 points" is given to the student if he presents the material on the chosen topic coherently and consistently, gives arguments to prove one or another position in the report, demonstrates the ability to analyze basic and additional literature, however, allows some inaccuracies in the formulation of concepts.

"3 points" is given to the student if he has conducted an independent analysis of the main and additional literature, however, certain provisions of the report are not always sufficiently argued, errors are made in the presentation of the material and do not always fully answer additional questions on the topic of the report.

#### **Abstract Evaluation Criteria**

The stated understanding of the abstract as a holistic author's text determines the criteria for its evaluation: the novelty of the text; the validity of the choice of source; the degree of disclosure of the essence of the issue; compliance with formatting requirements.

The novelty of the text: a) the relevance of the research topic; b) novelty and independence in posing the problem, formulating a new aspect of a well-known problem in establishing new connections (interdisciplinary, intradisciplinary, integration); c) the ability to work with research, critical literature, systematize and

structure the material; d) the explicitness of the author's position, the independence of assessments and judgments; e) stylistic unity of the text, unity of genre features.

The degree of disclosure of the essence of the issue: a) compliance of the plan with the topic of the abstract; b) compliance of the content with the topic and plan of the abstract; c) completeness and depth of knowledge on the topic; d) the validity of the methods and methods of working with the material; f) the ability to generalize, draw conclusions, compare different points of view on one issue (problem).

The validity of the choice of sources: a) assessment of the literature used: whether the most famous works on the research topic were involved (including journal publications of recent years, the latest statistics, summaries, references, etc.).

Compliance with the requirements for design: a) how correctly the references to the literature used, the list of references are formatted; b) assessment of literacy and culture of presentation (including spelling, punctuation, stylistic culture), knowledge of terminology; c) compliance with the requirements for the volume of the abstract.

The reviewer should clearly formulate the remark and questions, preferably with links to the work (possibly to specific pages of the work), to research and factual data that the author did not take into account.

The reviewer can also indicate: whether the student has previously addressed the topic (abstracts, written works, creative works, olympiad works, etc.) and whether there are any preliminary results; how the graduate did the work (plan, intermediate stages, consultation, revision and revision of the written or lack of a clear plan, rejection of the leader's recommendations).

The student submits an abstract for review no later than a week before the defense. The reviewer is the supervisor. Experience shows that it is advisable to familiarize the student with the review a few days before the defense. Opponents are appointed by the teacher from among the students. For an oral presentation, a student needs 10-20 minutes (approximately so much time answers the tickets for the exam).

Grade 5 is given if all the requirements for writing and defending the abstract are met: the problem is identified and its relevance is substantiated, a brief analysis

of various points of view on the problem under consideration is made and one's own position is logically stated, conclusions are formulated, the topic is fully disclosed, the volume is maintained, the requirements for external design, correct answers to additional questions are given.

Grade 4 - the basic requirements for the abstract and its defense are met, but there are some shortcomings. In particular, there are inaccuracies in the presentation of the material; there is no logical sequence in judgments; the volume of the abstract is not maintained; there are omissions in the design; incomplete answers were given to additional questions during the defense.

Grade 3 - there are significant deviations from the requirements for referencing. In particular: the topic is covered only partially; Factual errors were made in the content of the abstract or when answering additional questions; no output during protection.

Grade 2 - the topic of the abstract is not disclosed, a significant misunderstanding of the problem is found.

Grade 1 - the abstract is not submitted by the student.

**Sample essay topics:**

1. Organization and current state of the ambulance service in the Russian Federation.
2. Issues of organization and functioning of the EMS service.
3. Methodology for quality assurance in emergency care.
4. Primary cardiopulmonary resuscitation.
5. Methods of cardiopulmonary resuscitation at the prehospital stage.
6. Biological death. Indications for termination of resuscitation measures, legal norms.
7. Basic cardiopulmonary resuscitation.
8. Ways to ensure free airway patency.
9. The concept of extended cardiopulmonary resuscitation.
10. Technique of indirect heart massage.
11. Algorithm for cardiopulmonary resuscitation in adults 2015.
12. Features of the CPR algorithm in children.



MINISTRY OF SCIENCE AND HIGHER EDUCATION AND OF THE RUSSIAN FEDERATION  
Federal state autonomous educational institution  
of higher education  
«Far Eastern Federal University»  
(FEFU)

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**SCHOOL OF BIOMEDICINE**

**VALUATION FUND**

In the discipline "Emergency assistance in simulated conditions"  
Specialty 31.05.01 - general medicine  
Full-time training form

Vladivostok  
2018

## VF Passport

Code and wording of competence	Code and wording of competence	
GPC-11 readiness for the use of medical devices provided for by the procedures for the provision of medical care	Knows	main parameters and characteristics of specialized equipment and medical devices used to diagnose patient conditions requiring emergency medical care
	Can	use specialized equipment and medical products for cardiopulmonary resuscitation and defibrillation in case of cardiac arrest, to provide emergency care for injuries, fractures, bleeding
	Possesses	methods of using specialized equipment and medical devices for cardiopulmonary resuscitation and emergency care.
PC-3 ability and readiness to carry out anti-epidemic measures, organize the protection of the population in foci of especially dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies	Knows	etiology, pathogenesis, pathomorphology, clinical picture, course, outcome of emergency and urgent conditions requiring emergency medical care;
	Can	diagnostics and differential diagnostics of the main emergency and urgent syndromes and diseases; operating procedures for the provision of medical care
	Possesses	diagnose and provide medical care for the following life-threatening conditions in accordance with the current procedures for the provision of medical care

## CONTROL OF ACHIEVEMENT OF COURSE OBJECTIVES

Code and wording of competence	Stages of competence formation			
Controlled sections/topics of disciplines	Codes and stages of formation of competencies		Evaluation tools	
			Current control	Intermediate assessment/exam
Section I. Cardiopulmonary resuscitation Section II. Emergency medical care	GPC-11 readiness for the use of medical devices provided for by the procedures for the provision of medical care	Knows	US-1 Interview	Questions to credit
		Can	PW-1 Test	PW-1 Test
		Possesses	US-3 Report	US-2

Section I. Cardiopulmonary resuscitation Section II. Emergency medical care	PC-3 ability and readiness to carry out anti-epidemic measures, organize the protection of the population in foci of especially dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies	Knows	US-1 Interview	Questions to credit
		Can	PW-1 Test	PW-1 Test
		Possesses	US-3 Report	US-2

**Methodological recommendations that determine the procedures for evaluating the results of mastering the discipline**

- 100-86 points are given to the student if the student expressed his opinion on the formulated problem, argued it, accurately defining its content and components. The data of domestic and foreign literature, statistical information, information of a regulatory nature are given. The student knows and owns the skill of independent research work on the research topic; methods and techniques of analysis of theoretical and / or practical aspects of the study area. There are no actual errors related to understanding the problem; graphic work is framed correctly
- 85-76 points - the work is characterized by semantic integrity, coherence and consistency of presentation; no more than 1 mistake was made when explaining the meaning or content of the problem. For argumentation, data of domestic and foreign authors are given. Research skills and abilities are demonstrated. There are no actual errors related to understanding the problem. One or two errors were made in the design of the work
- 75-61 points - the student conducts a fairly independent analysis of the main stages and semantic components of the problem; understands the basic foundations and theoretical justification of the chosen topic. The main sources on the topic under consideration are attracted. No more than 2 mistakes were made in the sense or content of the problem, the design of the work
- 60-50 points – the work is a retold or completely rewritten source text without any comments or analysis. The structure and theoretical component of the topic is not



disclosed. Three or more than three errors were made in the semantic content of the problem being disclosed, in the design of the work.

### **Evaluation tools for current certification**

The current attestation of students in the discipline "Emergency assistance in simulated conditions" is carried out in accordance with the local regulations of the FEFU and is mandatory.

The current certification in the discipline "Emergency assistance in simulated conditions" is carried out in the form of testing, surveys on topics.

### **Sample test questions.**

1. When performing cardiopulmonary resuscitation in an adult, one resuscitator recommends the following ratio of the frequency of mechanical ventilation and chest compressions:

- a. 1:5;
- b. 2:15;
- c. 3:15;
- d. 2:5;
- e. 1:10

2. Where should the palms be placed for a closed heart massage?

- a. in the region of the middle third of the sternum;
- b. in the area of the xiphoid process;
- c. to the left of the sternum in the area of the 4th intercostal space;
- d. in the region of the lower third of the sternum, two transverse fingers above the base of the xiphoid process;
- e. on the border of the upper and middle thirds of the sternum.

3. Which of the following provisions is not an indication for direct cardiac massage:

- a. cardiac tamponade;
- b. penetrating wounds of the chest with a clinical picture of cardiac arrest;

- c. inefficiency of chest compressions during abdominal operations;
- d. chest deformity, mediastinal displacement, impossibility of effective external heart massage;
- e. low blood pressure and poorly defined carotid pulse after external cardiac massage.

4. For how long are mechanical ventilation and cardiac massage stopped if special methods of cardiopulmonary resuscitation (electrodefibrillation, etc.) are needed?

- a. 5-10 s;
- b. 15-30 s;
- c. 40-60 s;
- d. 60-90 s;
- e. 2-3 min.

5. Where should the palms be placed for closed heart massage?

- a. in the region of the middle third of the sternum;
- b. in the area of the xiphoid process;
- c. to the left of the sternum in the area of the 4th intercostal space;
- d. in the region of the lower third of the sternum, two transverse fingers above the base of the xiphoid process;
- e. on the border of the upper and middle thirds of the sternum.

### **Evaluation tools for intermediate certification**

Intermediate certification of students in the discipline "Emergency assistance in simulated conditions" is carried out in accordance with the local regulations of the Far Eastern Federal University and is mandatory.

As an intermediate certification for the discipline, a test is provided, conducted in the form of an oral survey in the form of answers to questions.

Intermediate attestation of students is carried out at the end of the study of the discipline "Emergency assistance in simulated conditions", in semester B.

### **Questions for intermediate certification**

1. Types and clinical manifestations of terminal conditions.
2. Differential diagnosis of clinical and biological death.
3. Basic cardiopulmonary resuscitation.
4. Regulatory framework for resuscitation.
5. Technique for mechanical ventilation, closed heart massage.
6. Criteria for the effectiveness of CPR. Criteria for termination of CPR.
7. The main stages of CPR. Contraindications for CPR.
8. Clinical death.
9. Methods of cardiopulmonary resuscitation at the prehospital stage.
10. Biological death.
11. Indications for termination of resuscitation, legal norms).
12. Brief information necessary to understand the cause of the severity of the patient's condition.
13. Classification of emergency conditions.
14. Algorithms for differential diagnosis of emergency conditions.
15. Recommendations and instructions that the doctor on duty or the substitution paramedic can give to the caller.
16. Sample list of questions to ask the patient or persons with him.
17. Examination and physical examination of patients in an emergency.
18. Terminal state.
19. The sequence of CPR.
20. CPR protocols 2015
21. Closed (open) heart massage, efficiency criteria.
22. Restoration of patency of the upper respiratory tract.
23. Artificial lung ventilation (ALV), performance criteria.

24. Electrical defibrillation, indications, methodology.
25. The concept of chemical defibrillation.
26. Legal basis for resuscitation.
27. Rules for stating death.
28. The concept of euthanasia
29. Algorithm of actions for a closed fracture of the leg bones.
30. Algorithm of actions for an open fracture of the humerus.
31. Bleeding.