Federal state budgetary educational institute of the higher education

«Orenburg state medical university» of Ministry of Health of the Russian Federation»

**INSTRUCTIONS**

**FOR THE INDEPENDENT WORK OF STUDENTS**

PUBLIC HEALTH AND HEALTHCARE, ECONOMY OF HEALTHCARE

by specialty

Emergency Medicine

31.05.01 General Medicine, Faculty of Foreign Students

It is part of the main professional educational program of higher education in specialty *31.05.01 General Medicine*

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Orenburg

**1.Explanatory note**

Independent work is a form of organizing the educational process that stimulates activity, independence, and the cognitive interest of students.

Independent work of students is an obligatory component of the educational process, since it ensures the consolidation of the acquired knowledge by acquiring the skills of comprehending and expanding their content, solving urgent problems of the formation of general cultural (universal), general professional and professional competencies, research activities, preparing for classes and passing the intermediate certification.

Independent work of students is a set of classroom and extracurricular activities and works that ensure the successful development of the educational program of higher education in accordance with the requirements of the Federal State Educational Standard. The choice of the form of organization of independent work of students is determined by the content of the academic discipline and the form of organization of training (lecture, seminar, practical lesson, etc.).

The goal of independent work is to develop a culture of safety, readiness and ability to provide first aid in the event of urgent and life-threatening conditions, including in an emergency. As a result of independent work in the discipline (module), the student should know:

 - characteristics of the medical and sanitary consequences of natural and man-made disasters and emergencies, methods and methods of protecting the population in emergencies and methods of first aid;

 - means of rendering first aid in various emergencies and the procedure for their use;

 - Techniques for providing medical assistance in emergency situations, including participation in medical evacuation;

 - Methods and methods of protecting the population in the centers of especially dangerous infections, when the radiation situation worsens, natural disasters and other emergencies, the procedure and techniques for organizing medical and evacuation, sanitary and hygienic and anti-epidemic measures.

Be able to:

 - assess the medical and sanitary situation, use first aid techniques;

 - use medical devices provided for by the procedure for the provision of medical care;

 - to recognize the medical and sanitary consequences of emergencies, to carry out measures to provide medical assistance in emergency situations, including participation in medical evacuation;

 - to recognize the danger and organize the protection of the population in the centers of especially dangerous infections, when the radiation situation worsens, natural disasters and other emergencies.

Own:

 - methods of first aid, methods of protecting the population in emergencies;

 - ways and methods of providing medical care in various emergencies with the use of medical devices;

 - methods of providing medical assistance in emergency situations, including participation in medical evacuation;

 -  methods of using individual and collective protective equipment.

**2. Content of students' independent work.**

The content of assignments for independent work of students in the discipline is presented ***in the fund of assessment tools for monitoring progress and intermediate certification in the discipline***, which is attached to the discipline's work program, section 6 "Educational and methodological support for the discipline (module)", in the information system of the University.

The list of educational, educational, methodological, scientific literature and information resources for independent work is presented in the work program of the discipline, section 8 "List of basic and additional educational literature necessary for mastering the discipline (module)".

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Self-theme  work | The form  independent work 1 | Independent work control form  *(in accordance with section 4 of the RP)* | The form  contact  work at  holding  the current  control 2 |
| 1 | 2 | 3 | 4 | 5 |
| *Independent work within the framework of practical training*  *module*" *Disaster Medicine".* | | | | |
| 1 | Topic “Emergencies. Unified State System for Prevention and Elimination of Consequences of Emergencies (RSChS). Tasks, organizational structure and governing bodies of the All-Russian Disaster Medicine Service (VCMK) " | *for mastering, consolidating and systematizing knowledge* : working with lecture notes; reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 2 | Topic "Fundamentals of medical and evacuation support of the population in emergency situations of peace and wartime" | *for mastering, consolidating and systematizing knowledge*: working with lecture notes; reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 3 | Topic “Features of medical and sanitary provision during the elimination of the consequences of natural and man-made emergencies. Medical and sanitary provision of the population during the elimination of the consequences of road traffic emergencies, explosive and fire hazardous nature " | *for mastering, consolidating and systematizing knowledge :* working with lecture notes; reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 4 | The topic "Sanitary and anti-epidemic (preventive) measures in the elimination of the consequences of emergencies" | *for mastering, consolidating and systematizing knowledge :* working with lecture notes; reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 5 | Topic “Preparation and organization of work of medical institutions in emergency situations. Fundamentals of the organization of medical and psychological support of the population, medical workers and rescuers in emergency situations. Features of medical and sanitary support in case of terrorist acts and local armed conflicts " | *for mastering, consolidating and systematizing knowledge :* working with lecture notes; reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| *Independent work within the framework of practical training*  module " Toxicology, radiology and medical protection". | | | | |
| 1 | Topic “Introduction to the toxicology of emergencies. Toxic nerve chemicals. Toxic chemicals are predominantly cytotoxic. Toxic chemicals of predominantly general toxic action " | *for mastering, consolidating and systematizing knowledge : working with lecture notes;*reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 2 | The topic is “Toxic chemicals of predominantly pulmonotoxic action.Incapacitants. Toxic chemicals that primarily cause transient disorders in human health and performance " | *for mastering, consolidating and systematizing knowledge : working with lecture notes;*reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 3 | Topic “Poisonous technical liquids. Introduction to Radiobiology. The basics of the biological action of ionizing radiation. Medical means of prevention and care for chemical and radiation injuries. Personal protective equipment " | *for mastering, consolidating and systematizing knowledge : working with lecture notes;*reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 4 | Topic “Means and methods of chemical reconnaissance and control. Basics for assessing the chemical environment.Organization and implementation of radiation reconnaissance and control. Basics for assessing the radiation situation. " | *for mastering, consolidating and systematizing knowledge : working with lecture notes;*reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |
| 5 | Topic “Organization and carrying out of special treatment in the outbreak and at the stages of medical evacuation. Protection of the population and rescuers in emergency situations of peace and wartime " | *for mastering, consolidating and systematizing knowledge : working with lecture notes;*reading the text of the textbook. | Testing, oral questioning, report, solving problem-situational tasks | - classroom - in practical training; |

**3. Methodical instructions for completing assignments for independent work in the discipline.**

**Methodical instructions for students**

**on the formation of skills in note-taking of lecture material**

1. The basis for the qualitative assimilation of the lecture material is the synopsis, but the synopsis is not so much a device for fixing the lecture content as a tool for its assimilation in the future. Therefore, think about what your outline should be so that you can solve the following tasks faster and more successfully:

a) finalize the records in the future (clarify, enter new information);

b) work on the content of the records - compare individual parts, highlight the main ideas, draw conclusions;

c) reduce the time spent on finding the necessary material in the synopsis;

d) reduce the time required for repetition of the studied and passed material, and increase the speed and accuracy of memorization.

To complete points "c" and "d", during the work on the synopsis, it is advisable to make notes also in pencil:

Example 1

/ - read again;

// outline the source;

? - unclear, requires clarification;

! - boldly;

S is too difficult.

Example 2

= - this is important;

[- to make extracts;

[] - extracts are made;

! - very important;

? - it is necessary to look, it is not entirely clear;

     - basic definitions;

      - is of no interest.

2. When taking notes, it is better to use large format notebooks - for convenience and freedom in the rational placement of notes on the sheet, as well as separate, lined sheets in a cage, which can be quickly and easily connected and disconnected.

3. Writing on one side of the sheet will allow, when working through the material, to lay out the necessary sheets on the table and, changing their order, bring together different parts of the course in time and space , which makes it easier to compare, establish connections, generalize the material .

4. With any method of note-taking, it is advisable to leave free space on the sheet for subsequent additions and notes. These are either wide margins or blank pages.

5. Lectures are recorded on the right page of each sheet in a spread, the left one remains blank. If this is not done, then when preparing for the exams, additional, explanatory and other information will have to be entered between the lines, and the synopsis will turn into a text of little use for reading and assimilation.

6. When taking notes, the principle of distant note-taking is in effect, which allows separate blocks of information to be divided both horizontally and vertically during recording: separate parts of the text are separated by distinct spaces - this is vertical division; horizontally, the material is divided into zones by fields: I - outlined text, II - own notes, questions, conventional signs, III - subsequent additions, information from other sources.

7. A great help in understanding the logic of the presented material is provided by rubrication, ie. numbering or designation of all its sections, subsections and smaller structures. At the same time, along with the note-taking, a text plan is drawn up, as it were. It is important that each new thought, aspect or part of the lecture be marked with its own sign (number, letter) and separated from others.

8. The basic principle of note-taking is to write not everything, but in such a way as to preserve everything really important and the logic of the presentation of the material, which, if necessary, will allow you to completely "expand" the summary into the source text according to the formula "note + memory = source text ".

9. In any text there are reference words, for example, helping to understand more important information ("in the end", "as a result", "in this way", "summary", "conclusion", "summarizing all of the above", etc. .) or signals of difference, i.e. words indicating the peculiarity, specificity of the object of consideration ("peculiarity", "characteristic feature", "specificity", "main difference", etc.). These words are usually followed by very important information. Pay attention to them.

10. If in the course of the lecture graphic modeling is proposed, then the reference scheme is written down large, freely, since crowding and small print make it difficult to understand .

11. Usually in a lecture there are several basic ideas around which all the rest of the material is grouped. It is very important to highlight and clearly document these ideas.

12. In the lecture, the plan, sources, concepts, definitions, basic formulas, schemes, principles, methods, laws, hypotheses, estimates, conclusions are recorded in the most detailed way.

13. Each listener has his own cursive writing system, which is based on the following techniques: the words most frequently encountered in a given area are shortened the most ; there are generally accepted abbreviations and abbreviations: "because", "etc.", "TSO", etc .; mathematical signs are used: "+", "-", "=", ">". "<" And others; adjective endings and participles are often omitted; words starting with a root are written without an ending ("soc.", "cap.", "rev.", etc.) or without a middle ("number", "in-in", etc.) ).

14. The system of accents and designations helps to understand the material and quickly find the right one. During the lecture, there should be 2-3 colored pencils or felt-tip pens on the desk, with which arrows, wavy lines, frames, conventional symbols on the auxiliary field circle, emphasize or indicate the key aspects of the lectures.

For example, a straight line indicates an important thought, a wavy line indicates an incomprehensible thought, and a vertical line in the margin indicates a particularly important thought. The main thesis is underlined in red, the wording - in blue or black, in green - the actual illustrative material .

15. The quality of assimilation of the material depends on its active listening, so externally show your attitude to one or another of its aspects: agreement, disagreement, bewilderment, question, etc. - this will allow the lecturer to better adapt the presented material to the audience .

16. An indicator of attention to educational information are questions to the lecturer. During the lecture, try to find and mark those aspects of the lecture that can become a "clue" for the question, and then in the next lectures, learn to formulate questions without being distracted from the perception of the content.

**Methodical instructions for students on preparation**

**to practical training**

A practical lesson *is a*form of organization of the educational process aimed at improving students' practical skills and abilities through a group discussion of a topic, an educational problem under the guidance of a teacher.

*When developing an oral response in a practical lesson, you can use the classic oratory scheme. This scheme is based on 5 stages*:

1. Selection of the necessary material for the content of the upcoming speech.

2. Drawing up a plan, dismembering the collected material in the necessary logical sequence.

3. " Verbal expression", literary processing of speech, saturation of its content .

4. Memorization, memorization of the text of speech or its individual aspects (if necessary).

5. Uttering a speech with appropriate intonation, facial expressions, gestures.

*Recommendations for building the composition of an oral response:*

1. The introduction should:

- to attract attention, arouse the interest of listeners to the problem, the subject of the answer;

- explain why your judgments about the subject (problem) are authoritative, significant;

- to establish contact with listeners by pointing to common views, previous experience.

2. The notice should:

- to reveal the history of the problem (subject) of the speech;

- to show its social, scientific or practical significance;

- to reveal previously known attempts to solve it.

3. In the process of argumentation it is necessary:

- to formulate the main thesis and give, if necessary for its clarification, additional information;

- to formulate an additional thesis, if necessary, accompanying it with additional information;

- to formulate a conclusion in general terms;

- point out the disadvantages of alternative positions and the advantages of your position .

4. In conclusion, it is advisable:

- to summarize your position on the problem under discussion, your final conclusion and decision;

- justify what the consequences are if you abandon your approach to solving the problem.

*Recommendations for drawing up a detailed response plan*

*to theoretical questions of practical training*

1. When reading the studied material for the first time, divide it into the main semantic parts, highlight the main thoughts and conclusions.

2. When drawing up a detailed outline plan, formulate its points, sub-points, determine what exactly should be included in the outline for the disclosure of each of them.

3. The most essential aspects of the studied material (theses) sequentially and briefly state in your own words or cite in the form of quotations.

4. In the synopsis include both key points and specific facts and examples, but not describe them in detail.

5. Write individual words and whole sentences in abbreviated form, write out only keywords, instead of citing, make only links to the pages of the cited work, use conventions.

6. Place paragraphs in steps, use colored pencils, markers, felt-tip pens to highlight significant places.

**Methodological instructions for the preparation of an oral report**

A report is a public message or document that contains information and reflects the essence of the issue or research in relation to a given situation.

*Algorithm for completing the task*:

1) clearly formulate the topic;

2) study and select the literature recommended on the topic, highlighting three sources of bibliographic information:

- primary (articles, dissertations, monographs, etc.);

- secondary (bibliography, abstract journals, signal information, plans, graph-diagrams, subject indexes, etc.);

- tertiary (reviews, compilation works, reference books, etc.);

3) write a plan that is fully consistent with the chosen topic and logically reveals it;

4) write a report, observing the following requirements:

- to the structure of the report - it should include: a short introduction justifying the urgency of the problem; main text; conclusion with brief conclusions on the problem under study; list of used literature;

- to the content of the report - general provisions should be supported and explained with specific examples; not to retell individual chapters of a textbook or study guide, but to state your own considerations on the merits of the issues under consideration, to make your own suggestions;

5) arrange the work in accordance with the requirements.

**Methodological instructions for preparing a computer presentation**

Computer presentation: demonstration in a visual form of the main provisions of the report, the degree of mastering the content of the problem.

*Algorithm for preparing a computer presentation*:

1) preparation and agreement with the scientific supervisor of the text of the report;

2) development of the presentation structure;

3) creating a Power Point presentation;

4) rehearsal of the report using the presentation.

*Requirements for the design of a computer presentation:*

- The presentation must fully comply with the text of your report. First of all, you need to compose the text of the report itself, and secondly, to create a presentation.

- The title slide should contain the topic of the report and the surname, name and patronymic of the speaker.

- The order of the slides should clearly correspond to the structure of your presentation. Do not plan to go back to previous slides or turn them forward during the presentation, this will complicate the process and may interfere with the course of your reasoning.

- Do not try to reflect the entire text of the report in the presentation! The slides should only show the main points of your talk.

- Slides should not be overloaded with graphic and text information, various animation effects.

- The text on the slides should not be too small (size 24-28).

- Sentences should be short, maximum 7 words. Each separate information should be in a separate sentence or on a separate slide.

- The theses of the report must be generally understandable.

- Spelling errors in the text of the presentation are not allowed!

- Illustrations (figures, graphs, tables) must have a clear, concise and expressive title.

- In the design of your presentation, adhere to the principle of "less is more"

- You should not use more than 3 different colors on one slide.

- Beware of light colors, they are difficult to see from a distance.

- The combination of background and text colors should be such that the text is easy to read. Best combination: white background, black text. It is recommended to use black or dark blue as the main font .

- It is better to use the same color scheme throughout the presentation, rather than different styles for each slide.

- Use only one type of font. Better to use a plain typeface instead of exotic and ornate fonts.

- On the final slide, as a rule, they thank for the attention, provide information for contacts.

*Requirements for the text of the presentation:*

- do not write long;

- break text information into slides;

- use headings and subheadings;

- to improve readability, use: formatting, lists, font selection.

*Presentation background requirements:*

Recommended use: blue on white, black on yellow, green on white, black on white, white on blue, green on red, red on yellow, red on white, orange on black, black on red, orange on white, red on green ...

*Requirements for presentation illustrations:*

- The more abstract the material, the more effective the illustration.

- What can be portrayed, it is better not to describe in words.

- To portray what is difficult or impossible to describe in words.

- Use animation as one of the most effective means of attracting and controlling the user's attention.

- Use video information that allows you to dynamically demonstrate information in real time, which is not available with traditional teaching.

- Remember that video information requires a lot of computing resources and significant costs for the delivery and reproduction of the image.

**Methodological instructions for performing information search**

**(search for unstructured information)**

Tasks of modern information retrieval:

- solution of modeling issues;

- classification of documents;

- filtration, classification of documents;

- design of architectures of search engines and user interfaces;

- extraction of information (annotation and abstracting of documents);

- the choice of the information retrieval language of the query in the search engines.

In the process of performing independent work, a student can use various types of search (the teacher can immediately indicate the type of information search necessary for completing the assignment) :

- bibliographic search - the search for the necessary information about the source and the establishment of its presence in the system of other sources. It is conducted by searching for bibliographic information and bibliographic aids (information publications);

- search for information sources themselves (documents and publications), which contain or may contain the necessary information;

- search for factual information contained in literature, a book (for example, about historical facts and events, about biographical data from the life and work of a writer, scientist, etc.).

*Algorithm for completing the task:*

1) definition of the area of ​​knowledge;

2) choice of type and data sources;

3) collection of materials necessary to fill the information model;

4) selection of the most useful information;

5) choice of information processing method (classification, clustering, regression analysis, etc.);

6) the choice of the algorithm for finding patterns;

7) search for patterns, formal rules and structural links in the collected information;

8) creative interpretation of the results obtained.

**4. Criteria for evaluating the results of assignments for independent work of students.**

Criteria for evaluating completed assignments are presented ***in the fund of evaluation tools for ongoing monitoring of progress and intermediate certification in the discipline***, which is attached to the work program of the discipline, section 6 "Educational and methodological support for the discipline (module)", in the information system of the University.