**SYLLABUS**

**ЖҮРЕК-ТАМЫР ЖҮЙЕСІ МЕН ҚАН ПАТОЛОГИЯСЫ,**

**ПАТОЛОГИЯ СЕРДЕЧНО-СОСУДИСТОЙ СИСТЕМЫ И КРОВИ**

**PATHOLOGY OF THE CARDIOVASCULAR SYSTEM AND BLOOD**

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| **1.**  | **General information about the discipline** |
| 1.1 | Faculty/School:Graduate School of Medicine | 1.6 | Credits (ECTS): 4 credits - 240 hours |
| 1.2 | Educational program (EP): 6B10103 ЖАЛПЫ МЕДИЦИНА 6B10103 ОБЩАЯ МЕДИЦИНА 6B10103 GENERAL MEDICINE  | 1.7 | **Prerequisites:**1. Жалпы патология/Общая патология/General pathology2. Науқас және дәрігер/Пациент и врач/Patient and doctor**Postrequisites:**Ішкі аурулар/Внутренние болезни/Internal medicineПедиатрия негіздері /Основы педиатрии/Pediatrics essenatialsХирургия негіздері/ Основы хирургии/Basics of Surgery |
| 1.3 | Agency and year of accreditation of the EPIAAR 2021 | 1.8 | SIW/SPM/SRD (qty):80 hours |
| 1.4 | Name of discipline: Жүрек-тамыр жүйесі мен қан патологиясы/Патология сердечно-сосудистой патологии/Pathology of the cardiovascular system and blood | 1.9 | SRSP/SRMP/SRDP (number):40 hours |
| 1.5 | Discipline ID: **90295**Discipline code: **PSSS3206** | 1.10 | ***Required - yes*** |
| **2.**  | **Description of the discipline** |
|  | During the course of the course to form students' abilities:The discipline includes the study of pathogenesis, pathomorphology, clinical presentation of problems (clinical syndromes), and clinically oriented pharmacology of pathology of the cardiovascular system and blood. The training involves the development of clinical argumentation, analytical and problem-oriented thinking, a deep understanding of the problem in a clinical context; the formation and development of skills for clinical diagnosis of pathology, and the reasonable formation of a syndromic diagnosis. |
| **3** | **Purpose of the discipline** |
| - Study of pathogenesis, pathomorphology, clinical presentation of problems (clinical syndromes) and clinically oriented pharmacology of pathology of the cardiovascular system and blood.- Development of clinical argumentation, analytical and problem-oriented thinking, deep understanding of the problem in a clinical context;- Formation and development of skills of clinical diagnosis of pathology and reasonable formation of a syndromic diagnosis. |
| **4.**  | **Learning outcomes (LО) by discipline (3-5)** |
|  | LO disciplines | LO according to the educational program,with which the LO is associated by discipline(LO No. from the EP passport) |
| 1 | 1. Apply knowledge on the pathogenesis of pathology of the cardiovascular system and blood in the process of diagnosis and treatment | Proficiency level  | 1. To apply detailed knowledge of the typical structure and functions of the human body at the level from molecules to cells of organs and the whole organism; apply knowledge of the main pathological processes and biological damage that they cause.
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| 2 | 2. Be able to conduct targeted questioning and physical examination of the patient, taking into account age characteristics with pathology of the cardiovascular system and blood. | Proficiency level | 1. Collect information from patients and other sources related to the diagnosis, treatment and prevention of common and emergency conditions, including the performance of diagnostic procedures.
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| 3 | 3. Identify diagnostic and therapeutic interventions related to common diseases affecting the cardiovascular system and blood. | Proficiency level | 1. Identify and interpret the clinical symptoms and syndromes, the data of laboratory and instrumental methods of research of patients with the most common diseases in their typical manifestation and course in the age aspect; interpret, analyze, evaluate, and prioritize relevant data for developing a plan for diagnosing and managing a disease, including initiating appropriate interventions.
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| 4 | 4. Interpret the basic data of laboratory and instrumental examination in the pathology of the cardiovascular system and blood | Proficiency level | 1. Integrate clinical skills and knowledge to provide individualized approach in the treatment of a specific patient, and the strengthening of health in accordance with its needs; make professional decisions based on the analysis of the rationality of diagnosis and applying the principles of evidence-based and personalized medicine.
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| 5 | 5. Integrate knowledge to identify the main syndromes of CVS and blood damage: arterial hypertension, heart pain, valvular apparatus lesion syndrome, acute and chronic heart failure syndrome, cardiac arrhythmia, anemic, sideropenic, cytopenic, plethoric, myelo-lymphoproliferative, hemorrhagic syndromes | Proficiency level | 1. Apply knowledge of the basic principles of human behavior for effective communication and therapeutic and diagnostic process in compliance with the principles of ethics and deontology; apply knowledge of the psychology of the patient, taking into account cultural characteristics and race; demonstrate skills in teamwork, organization and management of the diagnostic and therapeutic process; effectively build dynamic relationships between doctor and patient, which occur before, during and after medical treatment; effectively communicate medical information verbally and in writing to provide safe and effective care for patients; work effectively in an interprofessional / multidisciplinary team with other health care professionals;
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| 6 | 6. Describe the social, economic, ethnic and racial factors that play a role in the development, diagnosis and treatment of cardiac and hematological diseases; | Proficiency level | 1. To provide medical care for the most common diseases in patients of all age groups, in urgent and life-threatening conditions;
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| 7 | 7. Apply the classification of cardiological and hematological diseases, understand the mechanism of action, pharmacokinetics, analyze side effects, indications and contraindications to the use of antianginal, antiarrhythmic, hypotensive, hypolipidemic agents for the treatment of CHF, drugs acting on peripheral blood circulation and venous circulation, drugs affecting hematopoiesis using the principles of; | Proficiency level | 1. To apply knowledge of the rights, duties and ways of protecting the rights of the physician and the patient, including the child as a patient, in their professional activities; apply medical knowledge, clinical skills and professional attitude to the patient regardless of his age, culture, faith, traditions, nationality, lifestyle.
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| 8 | 8. Demonstrate the ability for effective medical interviewing, taking into account the rules and norms of the doctor-patient relationship and knowledge of the basic principles of human behavior at different age periods, in normal and abnormal behavior, in different situations; | Proficiency level | 8. Analyze and maintain the necessary documentation and organization of documents in health care organizations; the use of modern information and digital technology, and health information systems for professional applications |
| 9 | 9. Demonstrate commitment to the highest standards of professional responsibility and honesty; -observe ethical principles in all professional interactions; | Proficiency level | 9. Apply knowledge of the principles and methods of formation a healthy human and family life, population health; apply knowledge of a set factors that determine health and disease for the purpose of prevention |
| 10 | 10. Demonstrate the need for continuous professional training and improvement of their knowledge and skills; | Proficiency level | 10. Demonstrate commitment to the highest standards of professional responsibility and honesty; observe ethical principles in all professional interactions with patients, families, colleagues and society as a whole, regardless of ethnic characteristics, culture, gender, economic status or sexual orientation; Demonstrate the need for continuing professional education and the improvement of their knowledge and skills throughout their professional activities |
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| **5.** | **Summative assessment methods** (mark (yes – no) / specify your own): |
| 5.1  | MCQ testing for understanding and application | 5.5  | Scientific project SSRW (student’s scientific research work) |
| 5.2  | Practical skills – Miniclinical exam (MiniCex)  | 5.6  | 360 score - behavior and professionalism |
| 5.3  | 3. SIW- **creative task** | 5.7  | Midterm control:Stage 1 - MCQ testing for understanding and applicationStage 2 – passing practical skills (miniclinical exam (MiniCex) |
| 5.4  | Medical history | 5.8  | Exam:Stage 1 - Testing on MCQ for understanding and applicationStage 2 - OSCE with NP |

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| **6.**  | **Detailed information about the discipline** |
| 6.1 | Academic year:2023-2024 | 6.3 | Timetable (сабақ күні, уақыт): From 8.00 to14.00  |
| 6.2 | Semester:8 semester | 6.4 | Place(educational building, office, platform and link to the DOT learning meeting):City Clinical Hospital №1, City Clinical Hospital №7 |
| **7.** | **Discipline leader** |
| Position | Full name | Department | Contact information(tel., e-mail) | Consultations before exams |
| Senior lecturer | Bugibaeva A.B. | Clinical discipline | 8-702-447-46-31 | Before the examination session within 60 minutes |
| **8.** | **The content of the discipline** |
|  | Name of the discipline | Quantity of hours | Conducting form |
|  | Arterial hypertension | 18 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Valvular lesions | 24 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Coronary insufficiency (acute and chronic), | 24 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Acute and chronic heart failure. | 24 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Heart rhythm disorders | 18 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
| **Midterm control 1** | Summative evaluation:2 stages:1-stage – MCQ testing for understanding and application - 40%2-stage – mini clinical exam (MiniCex) - 60% |
|  | Anemic syndrome  | 6 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Sideropenic syndrome | 6 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Cytopenic syndrome | 6 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Plethoric syndrome | 6 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Myeloid and lymphoproliferative syndrome | 12 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
|  | Hemorrhagic syndrome | 6 | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center4. Mini-conference of the ISW topics |
| **Midterm control 2** | Summative evaluation:2 stages:1-stage – MCQ testing for understanding and application - 40%2-stage – mini clinical exam (MiniCex) - 60% |
| **Final control (Exam)** | Summative evaluation:2 stages:1-stage – MCQ testing for understanding and application - 40%2- stage – ОSCE with NP - 60% |
| **Total**  | **100** |
| **9.**  | **Methods of teaching in the discipline**(briefly describe the approaches to teaching and learning that will be used in teaching)Using active learning methods: TBL, CBL |
| 1 | **Methods of formative assessment:** TBL – Team Based Learning CBL – Case Based Learning  |
| 2 | **Summative assessment methods (from point 5):** 1. MCQ testing for understanding and application2. Passing practical skills - miniclinical exam (MiniCex)3. SIW - **creative task**4. Medical history5. Scientific project SSRW (student’s scientific research work)6. 360 score - behavior and professionalism |
| **10.**  | **Summative assessment** |
| **№** | **Forms of control** | **General % from total %** |
| 1 | Patient history defence | 30% (estimated by the checklist)  |
| 5 | Border control | 70% (1-stage – MCQ testing for understanding and application - 40%;2- stage – mini clinical exam (MiniCex) - 60%) |
| **Border control 1** | 30% +70% = 100% |
| 1 | Patient history defence | 20% (estimated by the checklist)  |
| 2 | 360 score - behavior and professionalism | 10% (estimated by the checklist) |
| 3 | Scientific project SSRW (student’s scientific research work) | 10%  |
| 5 | Border control  | 60% (1-stage – MCQ testing for understanding and application - 40%;2- stage – mini clinical exam (MiniCex) - 60%) |
| **Border control 2** | 20+10+10 + 60 = 100% |
| 9 | Exam | **2 stages:**1st stage - testing on MCQ for understanding and application - 40%2nd stage - OSCE with NP - 60% |
| 10 | **Final score:**  | ORD 60% + Exam 40%  |
| **10.** | **Score** |
| **Rating by letter system** | **Digital****equivalent** | **Points****(% content)** | **Assessment Description**(changes should be made only at the level of the decision of the Academic Committee on the quality of the faculty) |
| А  | 4,0  | 95-100  | **Excellent.** Exceeds the highest job standards. |
| А-  | 3,67  | 90-94  | **Excellent.** Meets the highest job standards. |
| В+  | 3,33  | 85-89  | **Good.** Very good. Meets high job standards. |
| В  | 3,0  | 80-84  | **Good.** Meets most of the job standards. |
| В-  | 2,67  | 75-79  | **Good.** More than enough. Shows some reasonable ownership of the material. |
| С+  | 2,33  | 70-74  | **Good.** Acceptable. Meets the basic standards of the task. |
| С  | 2,0  | 65-69  | **Satisfactory.** Acceptable. Meets some basic job standards. |
| С-  | 1,67  | 60-64  | **Satisfactory.** Acceptable. Meets some basic job standards. |
| D+  | 1,33  | 55-59  | **Satisfactory.** Minimally acceptable. |
| D  | 1,0  | 50-54  | **Satisfactory.** Minimally acceptable. The lowest level of knowledge and completion of the task. |
| FX  | 0,5  | 25-49  | **Unsatisfactory.** Minimally acceptable. |
| F  | 0  | 0-24  | **Unsatisfactory.** Very low productivity. |
| **11.** | **Educational resources** (use the full link and specify where you can access the texts/materials) |
| Literature  | **Main****Available in the library**

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| --- | --- | --- |
| **Author** | **Name of the book, publisher** | **Year of publication** |
| Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine | Elsevier. 3d edition, Chapter 8,9 p 153-228 – **1 экземпляр** | 2014 |
| Rau, Ramesh R | Rau, Ramesh R. Clinical Cardiology : Made Easy® / R. R. Rau, 2015. - 257 p. - Текст : непосредственный. | 2015 |
| С. К. Жауғашева, С. Б. Жәутікова, М. Т. Алиякпаров, М. М. Түсіпбекова | Тірек-қимыл жүйесі модулі : оқулық / С. К. Жауғашева, С. Б. Жәутікова, М. Т. Алиякпаров, М. М. Түсіпбекова ; жауапты ред.: С. Б. Жәутікова, С. Б. Нұрсұлтанова ; серия ред. Р. С. Досмағамбетова, 2014. - 237, [3] б. - Текст : непосредственный. | 2014 |
| Р. С. Досмағамбетова | Ішкі аурулар : оқулық : 2 томдық / жалпы ред. басқ. Р. С. Досмағамбетова ; жауапты ред. Л. Г. Тургунова ; ред. басқ.: В. С. Моисеев [және т.б.] ; қазақ тіл. ауд.: Ә. Р. Алина, Г. Ғ. Оспанова. 1-том, 2015. - 760, [1] б. - Текст : непосредственный. | 2015 |
| Р. С. Досмағамбетова | Ішкі аурулар : оқулық : 2 томдық / жалпы ред. басқ. Р. С. Досмағамбетова ; жауапты ред. Л. Г. Тургунова ; ред. басқ.: В. С. Моисеев [және т.б.] ; қазақ тіл. ауд.: Ә. Р. Алина, Г. Ғ. Оспанова. 1-том, 2015. - 760, [1] б. - Текст : непосредственный. | 2015 |
| Ахметов, Қайырғали Жәлелұлы | Ахметов, Қайырғали Жәлелұлы. Ішкі аурулар пропедевтикасы пәнінің клиникалық дәрістері : оқу құралы / Қ. Ж. Ахметов, 2018. - 265 б. - Текст : непосредственный. | 2018 |
| П. П. Огурцов, В. Е. Дворников | Неотложная кардиология : учеб. пособие / под ред.: П. П. Огурцов, В. Е. Дворников, 2020. - 262, [2] с. - Текст : непосредственный. | 2020 |
| Байдурин, Серик Амангельдинович | Байдурин, Серик Амангельдинович. Принципы диагностики заболеваний внутренних органов : учеб. пособие / С. А. Байдурин, Ф. К. Бекенова, 2015. - 207 с. - Текст : непосредственный. | 2015 |

**Additional****Available in the library**

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| **Author** | **Name of the book, publisher** | **Year of publication** |
| Cardiac Drugs : [monograph] / The Carver College of Medicine, University of Iowa, USA, 2015. - 536 p. - Текст : непосредственный. | 2015 |
| Katritsis, Demosthenes. Clinical Cardiology : Current Practice Guidelines / D. G. Katritsis, B. J. Gersh, A. J. Camm, 2016. - 970 p. - Текст : непосредственный. | 2016 |
| Muzdubayeva, Zhanna Ergalievna. Diagnosis and Principles of Treatment of Hematological Diseases : methodical guidance / Zh. E. Muzdubayeva, 2016. - 117, [1] p. - Текст : непосредственный. | 2016 |
| Ішкі аурулар кардиология модулі : оқулық / Л. К. Бадина, Н. Г. Малюченко, Ф. У. Нильдибаева, Г. Г. Оспанова ; серия ред. Р. С. Досмагамбетова ; [жауапты ред.: Л. Г. Тургунова, Е. М. Ларюшина], 2016. - 239, [1] б. - Текст : | 2016 |
| Ішкі аурулар Гематология модулі : оқулық / Л. Г. Тургунова, Е. М. Ларюшина, Н. С. Умбеталина [және т.б.] ; серия ред. Р. С. Досмагамбетова ; [жауапты ред.: Л. Г. Тургунова, Е. М. Ларюшина], 2016. - 239, [1] б. - Текст : непосредственный. | 2016 |
| Кишкун, Алексей Алексеевич. Клиникалық лабораториялық диагностика : оқу құралы / А. А. Кишкун ; қазақ тіл., жауапты ред. А. Ж. Сейтембетова, 2017. - 957, [2] б. - Текст : непосредственный. | 2017 |
| Кишкун, Алексей Алексеевич. Клиническая лабораторная диагностика : учеб. пособие / А. А. Кишкун, 2019. - 996, [2] с. - Текст : непосредственный | 2019 |
| Дуйсебаева, Алия Таттибаевна. Ультразвуковая диагностика в кардиологии : учеб. пособие / А. Т. Дуйсебаева, 2018. - 470 с. - Текст : непосредственный. | 2018 |
| Дифференциальная диагностика внутренних болезней / Российское научное медицинское общество терапевтов, 2018. - 927, [1] с. - Текст : непосредственный. | 2018 |
| Косарев, Владислав Васильевич. Клиническая фармакология и рациональная фармакотерапия : учеб. пособие / В. В. Косарев, С. А. Бабанов, 2019. - 235, [1] с. - Текст : непосредственный. | 2019 |

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| **Available at the department (link to Classroom)**

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| **Author** | **Name of the book, publisher** | **Year of publication** |
| Pierre Théroux, MD | Acute coronary syndromes : a companion to Braunwald’s heart disease, SECOND EDITION  | 2011 |
| Brent G. Petty | Basic Electrocardiography Second Edition | 2020 |
| Joseph Loscalzo, MD, PhD | HARRISON’S Cardiovascular Medicine | 2010 |
| James C. Reed, MD | CHEST RADIOLOGY: PATTERNS AND DIFFERENTIAL DIAGNOSES ISBN: 978-0-323-49831-9 SEVENTH EDITION | 2018 |
| Douglas L. Mann, MD, FACC | HEART FAILURE: A COMPANION TO BRAUNWALD’S HEART DISEASE, SECOND EDITION | 2011 |
| Henry R. Black, William J. Elliott | Hypertension A Companion to Braunwald’s Heart Disease SECOND EDITION | 2013 |
| M Gabriel Khan | Practical Cardiology First Edition | 2018 |
| Punit Ramrakha | Oxford Handbook of Cardiology SECOND EDITION | 2013 |
| Alan Noble, Alan Thomas | The Cardiovascular System BASIC SCIENCE AND CLINICAL CONDITIONS/ SECOND EDITION | 2010 |
| А.И. Дядыка, А.Э. Багрия | Сердечно-сосудистые заболевания у пожилых / | 2013 |
| Элисдейр Райдинг | Эхокардиография. Практическое руководство/ Элисдейр Райдинг: пер. с aнr. - М.: МЕДлресс-ннформ | 2010 |
| Ю. Н. Беленкова, Р. Г. Оганова | Кардиология. Национальное руководство : краткое издание / под ред. Ю. Н. Беленкова, Р. Г. Оганова. — М. : ГЭОТАР-Медиа | 2012 |
| Джородж А. Стаффер | Кардиология с иллюстрациями Неттера | 2021 |
| Струтынский А.В. | Электрокардиограмма – 14-е изд. М: Медпресс-информ  | 2012 |
| Dacie and Lewis | Practical Haematology | 2017 |
| A. Victor Hoffbrand | Hoffbrand’s Essential Haematology | 2011 |
| Сараева Н. О. | Гематология : учебное пособие | 2015 |
| Shauna C. Anderson Young | ANDERSON’S Atlas of Hematology THIRD EDITION | 2021 |
| Nicholas J Talley, Brad Frankum & David Currow. | Essentials of Internal medicine Elsevier. 3d edition | 2015 |
|  | Harrisson’s Manual of Medicine/ 20th Edition | 2020 |
| Jonathan Gleadle | History and Clinical Examination at a Glance | 2012 |

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| Electronic resources | **Internet resources:** 1. Medscape.com - <https://www.medscape.com/familymedicine>
2. Oxfordmedicine.com -<https://oxfordmedicine.com/>
3. Uptodate.com **-** [**https://www.wolterskluwer.com/en/solutions/uptodate**](https://www.wolterskluwer.com/en/solutions/uptodate)
4. **Osmosis -** [**https://www.youtube.com/c/osmosis**](https://www.youtube.com/c/osmosis)
5. **Ninja Nerd -** [**https://www.youtube.com/c/NinjaNerdScience/videos**](https://www.youtube.com/c/NinjaNerdScience/videos)
6. **CorMedicale -** [**https://www.youtube.com/c/CorMedicale**](https://www.youtube.com/c/CorMedicale) **- medical video animations in Russian language.**
7. **Lecturio Medical -** [**https://www.youtube.com/channel/UCbYmF43dpGHz8gi2ugiXr0Q**](https://www.youtube.com/channel/UCbYmF43dpGHz8gi2ugiXr0Q)
8. **SciDrugs -** [**https://www.youtube.com/c/SciDrugs/videos**](https://www.youtube.com/c/SciDrugs/videos) **- video lectures on pharmacology in Russian language.**
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| Simulators in the simulation center |  |
| Special software | 1. Google classroom - available in the public domain.2. Medical calculators: Medscape, Physician's Handbook, MD+Calc - freely available.3. Directory of diagnostic and treatment protocols for medical workers from the RCHD, the Ministry of Health of the Republic of Kazakhstan: Dariger - available in the public domain. |
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| **12.** | **Tutor Requirements and Bonus System** |
| **A student in accordance with an individual internship plan:****1)** supervises patients in organizations providing pre-medical medical care, emergency medical care, specialized medical care (including high-tech), primary health care, palliative care and medical rehabilitation;2) participates in the appointment and implementation of diagnostic, therapeutic and preventive measures;3) conducts documentation and sanitary and educational work among the population;4) participates in preventive examinations, medical examinations, is present at consultations;5) participates in clinical rounds, clinical reviews;6) participates in duty at least four times a month in medical organizations (duty is not taken into account when calculating the workload of an internship student);7) participates in clinical and clinical-anatomical conferences;8) is present at pathoanatomical autopsies, participates in the research of autopsy, biopsy and surgical materials;9) under the supervision of a scientific supervisor, collects material and analyzes data for a scientific project.**Bonus system:**For extraordinary achievements in the field of future professional activity (clinical, scientific, organizational, etc.), additional points up to 10% of the final assessment can be added to the student (by the decision of the department) |
| **13.** | **Discipline policy (части, выделенные зеленым, пожалуйста, не изменяйте)** |
|  | Discipline policy is determined by the University's Academic Policy and the University's Academic Integrity Policy. If the links do not open, then you can find the relevant documents in IS Univer.**Rules of Professional Conduct:** 1. **Appearance:**
* office style of clothing (shorts, short skirts, open T-shirts are not allowed to attend university, jeans are not allowed in the clinic)
* Clean and ironed coat
* medical mask
* medical cap (or a neat hijab without hanging ends)
* medical gloves
* changeable shoes
* neat hairstyle, long hair should be gathered in a ponytail, or a bun, for both girls and guys. Neatly short cut nails. Bright, dark manicure is prohibited. It is permissible to cover the nails with transparent varnish.
* badge with full name (full name)

2) Mandatory presence of a phonendoscope, tonometer, centimeter tape, (you can also have a pulse oximeter)3) Properly executed sanitary (medical) book (before the start of classes and must be updated on time)**4) \* Possession of a vaccination passport or other document confirming a fully completed course of vaccination against COVID-19 and influenza****5) Mandatory observance of the rules of personal hygiene and safety****6) Systematic preparation for the educational process.****7) Accurate and timely maintenance of reporting documentation.**8) Active participation in medical-diagnostic and public events of the departments.**A student without a medical book and vaccination will not be allowed to see patients.** **A student who does not meet the requirements for appearance and / or from whom a strong / pungent odor emanates, since such a smell can provoke an undesirable reaction in the patient (obstruction, etc.) - is not allowed to the patients!****Преподаватель в праве принять решение о допуске к занятиям студентов, которые не выполняют требования профессионального поведения, включая требования клинической базы!****Study discipline:**1. Being late for classes or the morning conference is not allowed. In case of being late, the decision on admission to the lesson is made by the teacher leading the lesson. If there is a good reason, inform the teacher about the delay and the reason by message or by phone. After the third delay, the student writes an explanatory note addressed to the head of the department indicating the reasons for being late and is sent to the dean's office to obtain admission to the lesson. If you are late without a valid reason, the teacher has the right to deduct points from the current grade (1 point for each minute of delay)
2. Religious events, holidays, etc. are not a valid reason for skipping, being late and distracting the teacher and the group from work during classes.
3. If you are late for a good reason - do not distract the group and the teacher from the lesson and quietly go to your place.
4. Leaving the class ahead of time, being outside the workplace during school hours is regarded as absenteeism.
5. Additional work of students during study hours (during practical classes and shifts) is not allowed.
6. For students who have more than 3 passes without notifying the curator and a good reason, a report is issued with a recommendation for expulsion.
7. Missed classes are not made up.
8. The internal regulations of the clinical bases of the department are fully applicable to students
9. Greet the teacher and any senior by standing up (in class)
10. Smoking (including the use of vapes, electronic cigarettes) is strictly prohibited on the territory of medical facilities (out-doors) and the university. Punishment - up to the annulment of boundary control, in case of repeated violation - the decision on admission to classes is made by the head of the department
11. Respectful attitude towards colleagues regardless of gender, age, nationality, religion, sexual orientation.
12. Have a laptop / laptop / tab / tablet with you for studying and passing MCQ tests for TBL, boundary and final controls.
13. Taking MCQ tests on phones and smartphones is strictly prohibited..

The behavior of the student at the exams is regulated by the "Rules for the final control", "Instructions for the final control of the autumn/spring semester of the current academic year" (the current documents are uploaded to the Univer IS and are updated before the start of the session); "Regulations on checking text documents of students for the presence of borrowings."Decision of the Department of Clinical Disciplines (protocol No. 2 of September 5, 2023):**In addition to the requirements for the academic discipline:**If you miss a class without a good reason, the teacher has the right to deduct points from the current control -10 points for each missed lesson for 4-5 year disciplines |
| 14 | 1. **Constantly preparing for classes:**For example, backs up statements with relevant references, makes brief summariesDemonstrates effective teaching skills, assists in teaching others**2. Take responsibility for your learning:**For example, manages their learning plan, actively tries to improve, critically evaluates information resources3. **Actively participate in group learning:**For example, actively participates in discussions, willingly takes tasks**4. Demonstrate effective group skills**For example, takes the initiative, shows respect and correctness towards others, helps to resolve misunderstandings and conflicts.5. **Skillful communication skills with peers**:For example, he listens actively, is receptive to nonverbal and emotional signals Respectful attitude**6. Highly developed professional skills:**Eager to complete tasks, seek opportunities for more learning, confident and skilledCompliance with ethics and deontology in relation to patients and medical staffObservance of subordination.**7. High introspection:**For example, recognizes the limitations of his knowledge or abilities, without becoming defensive or reproaching others**8. Highly developed critical thinking:**For example, accordingly demonstrates skills in performing key tasks, such as generating hypotheses, applying knowledge to cases from practice, critically evaluating information, making conclusions aloud, explaining the process of reflection**9. Fully complies with the rules of academic behavior with understanding, offers improvements in order to increase efficiency.**Observes the ethics of communication – both oral and written (in chats and appeals)**10. Fully follows the rules with full understanding of them, encourages other members of the group to adhere to the rules**Strictly adheres to the principles of medical ethics and PRIMUM NON NOCER |
| **15.** | **Distance/Online Learning – Prohibited in Clinical Discipline**(части, выделенные зеленым, пожалуйста, не изменяйте) |
| 1. According to the order of the Ministry of Education and Science of the Republic of Kazakhstan No. 17513 dated October 9, 2018 "On approval of the List of areas of training with higher and postgraduate education, training in which in the form of external studies and online education is not allowed". According to the above regulatory document, specialties with the discipline code of health care: bachelor's degree (6B101), master's degree (7M101), residency (7R101), doctoral studies, (8D101) - training in the form of external study and online education - is not allowed.Thus, students are prohibited from distance learning in any form. It is only allowed to work out a lesson in a discipline due to the absence of a student for reasons beyond his control and the presence of a timely confirming document (example: a health problem and presenting a confirming document - a medical certificate, a signal sheet of the PHC, an extract from a consultative appointment with a medical specialist - a doctor) |
| **16.** | **Approval and review** |
| Department head |  |  |
| Teaching Quality Committeeand teaching faculty | Protocol № | Confirmation date |
| Dean | Signature | Dean of faculty  |

**Topic plan and content of classes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| № | Тopic | Content | Literature | Conduct form |
|  | 2 | 3 | 4 | 5 |
| 1 | Arterial hypertension syndrome | Learning outcomes:- Identify symptoms and syndromes of damage to the cardiovascular system when interviewing a patient- Conduct targeted questioning and physical examination of the patient, taking into account age characteristics with pathology of the cardiovascular system;- Identify the main symptoms and syndromes of arterial hypertension (Primary and secondary arterial hypertension: renal, renovascular, endocrine, cardiovascular, neurogenic)- Explain the pathogenesis of primary and secondary hypertension- Confirm the presumed diagnosis of arterial hypertension - Can make a differential diagnosis between hypertension syndrome in endocrine, renal, and vascular diseases - May prescribe treatment to a patient with arterial hypertension, taking into account the individual characteristics of the patient and the characteristics of the prescribed drugs (ACE inhibitors, beta-blockers, diuretics, calcium channel blockers — calcium antagonists, angiotensin II receptor blockers, alpha-blockers, combined drugs from different groups). SIW: 1. Modern principles of hypertension treatment, the latest data (review of the article, case, video, simulation OR research thesis, report, article)2. Nutrition for hypertension(article review, case study, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-6.2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 9, p 217-228 (Электронный ресурс).3. Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-6: ил. Н.А. Мухин, В.С. Моисеев;4. Harrisson’s Manual of Medicine/ 20th Edition, Section 8, p. 676-682, p. 2209-2220.5. Henry R. Black, William J. Elliott. Hypertension A Companion to Braunwald’s Heart Disease SECOND EDITION (Электронный ресурс).6. <https://geekymedics.com/cardiovascular-examination-2/>  | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 2 | Valvular apparatus lesion syndrome | Learning outcomes:- to identify the symptoms and syndromes of damage to the valve apparatus when interviewing the patient;- to conduct targeted questioning and physical examination of the patient, taking into account age characteristics with valvular apparatus lesion syndrome;- Identify the main symptoms and syndromes of valvular heart disease (CHD: open arterial duct, atrial and interventricular septum defect, Tetrad of Fallot, acquired heart defects: mitral insufficiency and stenosis, aortic insufficiency and stenosis, tricuspid insufficiency, rheumatic and non-rheumatic valvular apparatus lesions);- interpret the data of laboratory and instrumental studies in case of valvular apparatus lesion syndrome;-to confirm the alleged diagnosis of damage to the valve apparatus using laboratory and instrumental methods; - can carry out differential diagnostics between noises in case of valvular apparatus damage (CHD, acquired heart defects, rheumatic and non-rheumatic valvular apparatus damage)- Prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications and contraindications for the treatment of damage to the valve apparatus- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: 1. Modern principles of diagnosis of heart defects, the latest data (review of the article, case, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-6 . 2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 8, p 181-189 (Электронный ресурс).3. Harrisson’s Manual of Medicine/ 20th Edition, Section 8, p. 658-666, p.2220-2244.4. History and Clinical Examination at a Glance Third edition Jonathan Gleadle 132-139 стр 5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Brent G. Petty. Basic Electrocardiography Second Edition – 2020, 1-19 p, 93-103 p7.Струтынский А.В. Электрокардиограмма – 14-е изд. М: Медпресс-информ – 2012 8. Пороки сердца. Руководства для практических врачей. – М: Эксмо – 2019г 9. Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-6: ил. Н.А. Мухин, В.С. Моисеев;10. <https://rermedapps.com/mitral-stenosis-osce-guide/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 3 | Coronary insufficiency syndrome | Learning outcomes:- Identify symptoms and syndromes of damage to the cardiovascular system when interviewing a patient- Conduct targeted questioning and physical examination of the patient, taking into account age characteristics with pathology of the cardiovascular system;- Identify the main symptoms and syndromes – ACS without and with ST elevation, myocardial infarction, all clinical forms of angina, - Interpret the data of laboratory and instrumental studies in ACS- to confirm the presumed diagnosis of ACS without and with ST elevations by laboratory and instrumental methods. - to carry out differential diagnosis between ACS without and with ST elevation, myocardial infarction, various clinical forms of angina pectoris - to know and use the classification, mechanism of action, and pharmacokinetics of drugs, prescribe them taking into account side effects, indications, and contraindications to the use of anticoagulant, antianginal, antiarrhythmic, hypotensive agents in the treatment of ACS- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- integrates knowledge and skills to ensure an individual approach in the treatment of a particular patient;- Demonstrate communication skills, teamwork skills, organization and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: 1. Modern principles of ACS treatment, latest data (review of the article, case, video, simulation OR research thesis, report, article)2. Nutrition for coronary syndrome (article review, case study, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-6 . 2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 8, p 172-181 (Электронный ресурс).3. Harrisson’s Manual of Medicine/ 20th Edition, Section 8, p. 684-689, p.2220-2244.4. History and Clinical Examination at a Glance Third edition Jonathan Gleadle – 70-72 р, 126-128р 5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Brent G. Petty. Basic Electrocardiography Second Edition – 2020, 49-65 p7. Joseph Loscalzo. HARRISON’S Cardiovascular Medicine – 2015, 32-40 р8. Practical Cardiology First Edition: 2018, 12-25 р9. Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-6: ил. Н.А. Мухин, В.С. Моисеев; 10.Струтынский А.В. Электрокардиограмма – 14-е изд. М: Медпресс-информ – 2012 11. Кардиология с иллюстрациями Неттера/Стафферр Джордж А, Рунге Маршал С и др.перс анг. – М: Издательство Панфилова,2021, 152-205 стр12. <https://rermedapps.com/mitral-stenosis-osce-guide/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 4 | Acute and chronic heart failure syndrome | Learning outcomes:- conducts targeted questioning and physical examination to identify the symptoms of AHF and CHF based on the application of knowledge of pathogenesis - Identify symptoms and syndromes of acute heart failure: hypertensive heart failure, pulmonary edema, cardiogenic shock (Acute coronary syndrome recurrence, myocardial infarction, endocarditis, myocarditis, pericarditis, Dressler syndrome, cardiac tamponade, PE, Syndrome X, Takotsubo cardiomyopathy)- Identify symptoms and syndromes of chronic heart failure: left and right ventricular failure (coronary artery disease, hypertension, hypertrophic cardiomyopathy, dilated cardiomyopathy, restrictive cardiomyopathy, Sudden cardiac death syndrome) - interpret the data of laboratory and instrumental studies in heart failure syndrome;-to confirm the alleged diagnosis of damage to the cardiovascular system using laboratory and instrumental methods (ECG, Echo-KG, Ultrasound MRI, angiography, SMAD, Holter-ECG)- can make a differential diagnosis between acute and chronic heart failure - prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for the treatment of acute and chronic heart failure- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Modern principles of treatment of CHF, the latest data (review of the article).2. Nutrition for CHF(article review, case study, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-6 . 2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 8, p 203-213 (Электронный ресурс).3. Harrisson’s Manual of Medicine/ 20th Edition, Section 8, p. 715-721, p.2220-2244.4. History and Clinical Examination at a Glance Third edition Jonathan Gleadle – 140-142 р, 126-128р 5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Brent G. Petty. Basic Electrocardiography Second Edition – 2020, 153-163 p7. Joseph Loscalzo. HARRISON’S Cardiovascular Medicine – 2015, 178-241 р8. Practical Cardiology First Edition: 2018, 164-210 р9. Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-6: ил. Н.А. Мухин, В.С. Моисеев; 10.Струтынский А.В. Электрокардиограмма – 14-е изд. М: Медпресс-информ – 2012 11. Кардиология с иллюстрациями Неттера/Стафферр Джордж А, Рунге Маршал С и др.перс анг. – М: Издательство Панфилова,2021, 212-282 стр12. <https://rermedapps.com/mitral-stenosis-osce-guide/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 5 | Heart rhythm disorders | Learning outcomes:- conducts targeted questioning and physical examination to identify symptoms of cardiac arrhythmia based on the application of knowledge of pathogenesis - Identify symptoms and syndromes of cardiac arrhythmia: arrhythmias associated with cardiac automatism disorders: sinus bradycardia, tachycardia, arrhythmia, respiratory arrhythmia, atrioventricular rhythm. Arrhythmias associated with cardiac arousal disorders: extrasystoles, paroxysmal tachycardia, atrial fibrillation, ventricular fibrillation. Arrhythmias associated with conduction disorders: AV blockades.- interpret the data of laboratory and instrumental (ECG, Echo-KG, UZDG, MRI, angiography, SMAD, Holter-ECG) studies in the syndrome of cardiac arrhythmia;- can make a differential diagnosis between heart rhythm disorders- prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for the treatment of cardiac arrhythmia (antiarrhythmic drugs)- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Modern principles of arrhythmia treatment, latest data ((review of the article, case, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-6 . 2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 8, p 163-166, 194-200 р (Электронный ресурс).3. Harrisson’s Manual of Medicine/ 20th Edition, Section 8, p. 703-715, p.2220-2244.4. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages5. Brent G. Petty. Basic Electrocardiography Second Edition – 2020, 65-142 p6. Joseph Loscalzo. HARRISON’S Cardiovascular Medicine – 2015, 86-99 р. 478-504 р7. Practical Cardiology First Edition: 2018, 245-262 р8. Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-6: ил. Н.А. Мухин, В.С. Моисеев; 9.Струтынский А.В. Электрокардиограмма – 14-е изд. М: Медпресс-информ – 2012 10. Кардиология с иллюстрациями Неттера/Стафферр Джордж А, Рунге Маршал С и др.перс анг. – М: Издательство Панфилова,2021, 288-362 стр11. <https://rermedapps.com/mitral-stenosis-osce-guide/>12. <https://geekymedics.com/record-ecg/>13. <https://oscestop.education/interpretation/ecg-interpretation/>14. <https://geekymedics.com/category/osce/data-interpretation/ecg/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 6 | Anemic syndrome | Learning outcomes:- conducts targeted questioning and physical examination to identify symptoms and syndromes of anemia based on the application of knowledge of pathogenesis - Identify symptoms and syndromes of anemia: iron deficiency anemia, B-12 –deficiency anemia, hemolytic anemia- interpret the data of laboratory and instrumental (BT, UT, BHA, blood smear, sternal puncture, myelogram, and ECG, ultrasound of the abdominal cavity) studies in anemia syndrome;-to confirm the alleged diagnosis of hematopoiesis lesion using laboratory and instrumental methods - can carry out differential diagnosis between anemia syndromes- prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for use for the treatment of anemic syndrome (iron preparations, vitamin B12, transfusion, glucocorticoid drugs)- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Algorithm for diagnosis of anemia syndrome. Form of execution – original report, PowerPoint presentation/video presentation (article review, case, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-10.2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 14, p. 440-450 (Электронный ресурс).4. Harrisson’s Manual of Medicine/ 20th Edition, Section 6, p. 269-275, p. 2342-2347, 2422-2433.5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Dacie and Lewis Practical Haematology/ Twelfth edition , Elsevier Limited – 20177. Hoffbrand’s essential haematology / A. Victor Hoffbrand, Paul A. H. Moss. — Seventh edition. – 2016, chapter 6-128. Основы клинической гематологии: учебное пособие / С.А. Вол кова, Н.Н. Боровков. — Н. Новгород: Издательство Нижегородской гос. медицинской академии, 20139. «Кан түзуші жүйесі» модулі : модуль «Кроветворная система» : Интеірацияланған оқулық : казак және орыс тілдерінде / С. К. Жаугашева, М. Т. Алиякпаров, С. Б. Жәутікова және т.б. — М .: Литтерра, 2014. — 288 б10.Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-10: ил. Н.А. Мухин, В.С. Моисеев;11. <https://geekymedics.com/fbc-interpretation/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 7 | Sideropenic syndrome | Learning outcomes:- conducts targeted questioning and physical examination to identify symptoms and syndromes of sideropenia based on the application of knowledge of pathogenesis - Identify symptoms and syndromes of anemia: iron deficiency and sidereo-achristic anemia, thalassemia- interpret the data of laboratory and instrumental (BT, UT, BHA, blood smear, sternal puncture, myelogram and ECG, ultrasound of the abdominal cavity) studies in sideropenic syndrome;-to confirm the alleged diagnosis of hematopoiesis lesion using laboratory and instrumental methods - can perform differential diagnosis between sideropenia syndromes- prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for the treatment of sideropenic syndrome - possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Algorithm for diagnosis of sideropenia syndrome. Form of execution – original report, PowerPoint presentation/video presentation (article review, case, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-10.2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 14, p. 440-450 (Электронный ресурс).4. Harrisson’s Manual of Medicine/ 20th Edition, Section 6, p. 269-275, p. 2342-2347, 2422-2433.5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Dacie and Lewis Practical Haematology/ Twelfth edition , Elsevier Limited – 20177. Hoffbrand’s essential haematology / A. Victor Hoffbrand, Paul A. H. Moss. — Seventh edition. – 2016, chapter 6-128. Основы клинической гематологии: учебное пособие / С.А. Вол кова, Н.Н. Боровков. — Н. Новгород: Издательство Нижегородской гос. медицинской академии, 20139. «Кан түзуші жүйесі» модулі : модуль «Кроветворная система» : Интеірацияланған оқулық : казак және орыс тілдерінде / С. К. Жаугашева, М. Т. Алиякпаров, С. Б. Жәутікова және т.б. — М .: Литтерра, 2014. — 288 б10.Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-10: ил. Н.А. Мухин, В.С. Моисеев;11. <https://geekymedics.com/fbc-interpretation/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 8 | Cytopenic syndrome | - conducts targeted questioning and physical examination to identify symptoms and syndromes of cytopenia based on the application of knowledge of pathogenesis - Identify symptoms and syndromes of cytopenia: hypo and aplastic anemia, B-12 – deficiency anemia- interpret the data of laboratory and instrumental (BT, UT, BHA, blood smear, sternal puncture, myelogram and ECG, ultrasound of the abdominal cavity) studies in cytopenic syndrome;-to confirm the alleged diagnosis of hematopoiesis lesion using laboratory and instrumental methods - can make a differential diagnosis between cytopenia syndromes (hypo and aplastic anemia, B-12 – deficiency anemia, cytopenia in leukemia)- prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for the treatment of cytopenic syndrome- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Algorithm for diagnosis of cytopenia syndrome. Form of execution – original report, PowerPoint presentation/video presentation (article review, case, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-10.2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 14, p. 440-450 (Электронный ресурс).4. Harrisson’s Manual of Medicine/ 20th Edition, Section 6, p. 269-275, p. 2342-2347, 2422-2433.5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Dacie and Lewis Practical Haematology/ Twelfth edition , Elsevier Limited – 20177. Hoffbrand’s essential haematology / A. Victor Hoffbrand, Paul A. H. Moss. — Seventh edition. – 2016, chapter 22, 243-249 р8. Основы клинической гематологии: учебное пособие / С.А. Вол кова, Н.Н. Боровков. — Н. Новгород: Издательство Нижегородской гос. медицинской академии, 20139. «Кан түзуші жүйесі» модулі : модуль «Кроветворная система» : Интеірацияланған оқулық : казак және орыс тілдерінде / С. К. Жаугашева, М. Т. Алиякпаров, С. Б. Жәутікова және т.б. — М .: Литтерра, 2014. — 288 б10.Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-10: ил. Н.А. Мухин, В.С. Моисеев;11. <https://geekymedics.com/fbc-interpretation/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 9 | Plethoric syndrome | - Conduct targeted questioning and physical examination of the patient, taking into account age characteristics with blood pathology, to identify symptoms and syndromes based on the application of knowledge of pathogenesis - Identify symptoms and syndromes of plethoria: erythemia, polycythemia- interpret the data of laboratory and instrumental (BT, UT, BHA, blood smear, sternal puncture, myelogram and ECG, ultrasound of the abdominal cavity) studies in plethoric syndrome;-to confirm the alleged diagnosis of erythropoiesis lesion using laboratory and instrumental methods - can perform differential diagnosis between fetal syndromes (erythemia, polycythemia in other diseases)- prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for the treatment of plethoric syndrome- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Algorithm of diagnosis in erythremia. Form of execution – original report, PowerPoint presentation/video presentation (article review, case, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-10.2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 14, p. 421-430 (Электронный ресурс).4. Harrisson’s Manual of Medicine/ 20th Edition, Section 6, p. 269-275, p. 2342-2347, 2422-2433.5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Dacie and Lewis Practical Haematology/ Twelfth edition , Elsevier Limited – 20177. Hoffbrand’s essential haematology / A. Victor Hoffbrand, Paul A. H. Moss. — Seventh edition. – 2016, chapter 16, 168-175 р8. Основы клинической гематологии: учебное пособие / С.А. Вол кова, Н.Н. Боровков. — Н. Новгород: Издательство Нижегородской гос. медицинской академии, 20139. «Кан түзуші жүйесі» модулі : модуль «Кроветворная система» : Интеірацияланған оқулық : казак және орыс тілдерінде / С. К. Жаугашева, М. Т. Алиякпаров, С. Б. Жәутікова және т.б. — М .: Литтерра, 2014. — 288 б10.Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-10: ил. Н.А. Мухин, В.С. Моисеев;11. <https://geekymedics.com/fbc-interpretation/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 10 | Syndrome, myelo - and lymphoproliferative, | - Conduct targeted questioning and physical examination of the patient, taking into account age characteristics with blood pathology, to identify symptoms and syndromes based on the application of knowledge of pathogenesis - Identify symptoms and syndromes of myelo- and lymphoproliferation: acute and chronic leukemia- interpret the data of laboratory and instrumental (BT, UT, BHA, blood smear, sternal puncture, myelogram and ECG, ultrasound of the abdominal cavity) studies in myelo-lymphoproliferative syndrome;-to confirm the alleged diagnosis of hematopoiesis lesion using laboratory and instrumental methods - can perform differential diagnosis between myelo- and lymphoproliferation syndromes (acute and chronic leukemia)- prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for the treatment of myelo- and lymphoproliferative syndrome- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Algorithm for diagnosis of leukocytosis. The form of execution is an original report, a PowerPoint presentation/video presentation. (article review, case study, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-10.2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 14, p. 426-437 (Электронный ресурс).4. Harrisson’s Manual of Medicine/ 20th Edition, Section 6, p. 275278, p. 2342-2347, 2422-2433.5. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages6. Dacie and Lewis Practical Haematology/ Twelfth edition , Elsevier Limited – 20177. Hoffbrand’s essential haematology / A. Victor Hoffbrand, Paul A. H. Moss. — Seventh edition. – 2016, chapter 13,14,15,16,17,188. Основы клинической гематологии: учебное пособие / С.А. Вол кова, Н.Н. Боровков. — Н. Новгород: Издательство Нижегородской гос. медицинской академии, 20139. «Кан түзуші жүйесі» модулі : модуль «Кроветворная система» : Интеірацияланған оқулық : казак және орыс тілдерінде / С. К. Жаугашева, М. Т. Алиякпаров, С. Б. Жәутікова және т.б. — М .: Литтерра, 2014. — 288 б10.Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-10: ил. Н.А. Мухин, В.С. Моисеев;11. <https://geekymedics.com/fbc-interpretation/>12. <https://geekymedics.com/acute-myeloid-leukaemia/> | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |
| 11 | Hemorrhagic syndrome | - Conduct targeted questioning and physical examination of the patient, taking into account age characteristics with blood pathology, to identify symptoms and syndromes based on the application of knowledge of pathogenesis - to identify the symptoms and syndromes of hemorrhage (Vascular hemostasis disorders. Autoimmune thrombocytopenic purpura, Werlhof's disease, hereditary tromocytopathies, secondary thrombocytopenia, hemophilia)- interpret the data of laboratory and instrumental (BT, UT, BHA, blood smear, sternal puncture, myelogram, and ECG, ultrasound of the abdominal cavity) studies in hemorrhagic syndrome;-to confirm the alleged diagnosis of hematopoiesis lesion using laboratory and instrumental methods - can perform differential diagnosis between hemorrhagic syndromes (Vascular hemostasis disorders. Autoimmune thrombocytopenic purpura, Werlhof's disease, hereditary tromocytopathies, secondary thrombocytopenia, hemophilia)- prescribe and use the classification of drugs, mechanism of action, pharmacokinetics, side effects, indications, and contraindications for the treatment of hemorrhagic syndrome- possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems;- demonstrate communication skills, teamwork skills, organization, and management of the diagnostic and treatment process;- apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family;- demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and respect for the principles of confidentiality;- demonstrate the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity; - demonstrate the initial skills of research work.SIW: Algorithm of diagnosis in thrombocytopenia. The form of execution is an original report, a PowerPoint presentation/video presentation. (article review, case study, video, simulation OR research thesis, report, article) | 1. Мухин Н.А., Моисеев В.С. Пропедевтика внутренних болезней: учебник. — 2-е изд., доп. и перераб. М.: ГЭОТАР – 2020г, глава-10.2. Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine Elsevier. 3d edition, Chapter 14, p. 414-422 (Электронный ресурс).4. Graham Douglas , Fiona Nicol . Macleods Clinical Examination.\_ 4th\_edition\_2016, 40-74 pages5. Dacie and Lewis Practical Haematology/ Twelfth edition , Elsevier Limited – 20176. Hoffbrand’s essential haematology / A. Victor Hoffbrand, Paul A. H. Moss. — Seventh edition. – 2016, chapter 25-268. Основы клинической гематологии: учебное пособие / С.А. Вол кова, Н.Н. Боровков. — Н. Новгород: Издательство Нижегородской гос. медицинской академии, 20139. «Кан түзуші жүйесі» модулі : модуль «Кроветворная система» : Интеірацияланған оқулық : казак және орыс тілдерінде / С. К. Жаугашева, М. Т. Алиякпаров, С. Б. Жәутікова және т.б. — М .: Литтерра, 2014. — 288 б10.Ішкі аурулар пропедевтикасы: оқулық — М.: ГЭОТАР-Медиа,2015, Тарау-10: ил. Н.А. Мухин, В.С. Моисеев; | Formative assessment:1. Using active learning methods: TBL, CBL2. Working with the patient3. Training in the simulation center |

**RUBRICATOR FOR ASSESSING LEARNING OUTCOMES**

**with summative assessment**

**Rating calculation formula**

**For the 4th course as a whole- overall admission rating (OAR)**

|  |  |
| --- | --- |
| Medical history | 30% |
| Border control 1 | 70% |
| **Total for BC-1** | 100% |
| 360 rating | 10% |
| Science project | 10% |
| Medical history | 20% |
| Border control 2 | 60% |
| **Total for BC -2** | 100% |

**Final score:** OAR 60% + exam 40%

**Exam (2 stages)** – MSQ testing (40%) + OSKE (60%)**ем**

**Team based learning – TBL**

|  |  |
| --- | --- |
|  | % |
| **Individual -- (IRAT)** | **30** |
| **Group -- (GRAT)** | **10** |
| **Appeal** | **10** |
|  |  |
| **Case rating -** | **20** |
| **Companion rating (bonus)** | **10** |
|  | **100%** |

**Case-based learning CBL**

|  |  |  |
| --- | --- | --- |
|  |  | % |
| 1 | **Interpreting survey data** | 10 |
| 2 | **Interpretation of physical examination findings** | 10 |
| 3 | **Preliminary diagnosis, justification, PD, examination plan** | 10 |
| 4 | **Interpretation of lab-instrumental examination data** | 10 |
| 5 | **Clinical diagnosis, problem sheet** | 10 |
| 6 | **Management and treatment plan** | 10 |
| 7 | **The validity of the choice of drugs and treatment regimens** | 10 |
| 8 | **Evaluation of effectiveness, prognosis, prevention** | 10 |
| 9 | **Special problems and questions on the case** | 10 |
| 10 | **Companion rating (bonus)** |  |
|  |  | **100%** |

**360° assessment checklist for student**

**CURATOR and Lecturer**

 FULL NAME of Curator \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Very well** | **Criteria and points** | **Unsatisfactory** |
| **1** | **Constantly preparing for classes:**For example, backs up statements with relevant references, makes short summariesDemonstrates effective teaching skills, assists in teaching others | **Preparing for classes****10 8 6 4 2 0** | **Constantly not preparing for class**For example, insufficient reading and study of problematic issues, makes little contribution to the knowledge of the group, does not analyze, does not summarize the material. |
| **2** | **Takes responsibility for their own learning:**For example, manages their learning plan, actively tries to improve, critically evaluates information resources  | **A responsibility****10 8 6 4 2 0** | **Takes no responsibility for their own learning:**For example, depends on others to complete the learning plan, hides mistakes, rarely critically analyzes resources. |
| **3** | **Actively participates in the training of the group:**For example, actively participates in discussions, willingly takes tasks | **Participation****10 8 6 4 2 0** |  **Not active in the group training process:**For example, does not participate in the discussion process, is reluctant to accept assignments |
| **4** | **Demonstrates effective group skills**For example, takes the initiative, shows respect and correctness towards others, helps to resolve misunderstandings and conflicts. | **Group skills****10 8 6 4 2 0** | **Demonstrates ineffective group skills**For example, inappropriately intervening, showing poor discussion skills by interrupting, avoiding or ignoring others, dominating or impatient |
| **5** | **Skilled in communicating with peers:**For example, actively listening, receptive to non-verbal and emotional cuesRespectful attitude | **Communications****10 8 6 4 2 0** | **Difficulty communicating with peers**For example, poor listening skills, unable or disinclined to listen to non-verbal or emotional cuesUse of obscene language |
| **6** | **Highly developed professional skills:**Eager to complete tasks, seek opportunities for more learning, confident and skilledCompliance with ethics and deontology in relation to patients and medical staffObservance of subordination. | **Professionalism****10 8 6 4 2 0** | **Clumsy, fearful, refusing to try even basic procedures**Inferiority in professional behavior - causing harm to the patient, rude disrespectful attitude towards medical staff, colleagues |
| **7** | **High introspection:**For example, recognizes the limitations of their knowledge or abilities without becoming defensive or rebuking others.  | **Reflection****10 8 6 4 2 0** | **Low introspection:**For example, needs more awareness of the limits of understanding or ability and does not take positive steps to correct  |
| **8** | **Highly developed critical thinking:**For example, appropriately demonstrates skill in performing key tasks such as generating hypotheses, applying knowledge to case studies, critically evaluating information, drawing conclusions aloud, explaining the process of thinking | **Critical thinking****10 8 6 4 2 0** | **Critical Thinking Deficiency:**For example, has difficulty completing key tasks. As a rule, does not generate hypotheses, does not apply knowledge in practice either because of their lack or because of inability (lack of induction), does not know how to critically evaluate information |
| **9** | Fully adheres to the rules of academic conduct with understanding, suggests improvements in order to increase efficiency.Complies with the ethics of communication - both oral and written (in chats and appeals) | **Compliance with the rules of academic conduct****10 8 6 4 2 0** | Пренебрегает правилами, мешает другим членам коллективаNeglects the rules, interferes with other members of the team |
| **10** | Fully follows the rules with full understanding of them, encourages other members of the group to adhere to the rulesStrictly adheres to the principles of medical ethics and PRIMUM NON NOCERE | **Compliance with the rules of conduct in the hospital****10 8 6 4 2 0** | Breaks the rules.Encourages and provokes other members of the group to break the rulesCreates a threat to the patient |
|  | Maximum | **100 points** |  |

\* gross violation of professional behavior, rules of conduct in the hospital - or a decrease in the grade for boundary control or cancellation; ethical committee

Such violations are a threat to the health of patients due to action (for example, smoking on the territory of the hospital) or inaction; rudeness and rudeness towards any person (patient, classmate, colleague, teacher, doctor, medical staff)

**Point-rating assessment (check-list) of medical history management (maximum 100 points)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **№** | **Criteria** | **10** | **8** | **6** | **4** | **2** |
| ***Excellent*** | ***Good*** | ***Satisfactory*** | ***Need correction*** | ***Bad*** |
| 1 | Patient complaints: major and minor | Completely and systematically, with an understanding of important details | Accurate and complete | basic information | Incomplete or inaccurate, some details are missing | Misses important |
| 2 | Collecting an anamnesis of the disease |
| 3 | Anamnesis of life |
| 4 | Objective status - general examination | Completely and systematically, with an understanding of important details | Consistently and correctly | Identification of main data | Incomplete or not quite correct, not attentive to patient comfort | Inappropriate data |
| 5 | **Nervous system** |  | Complete, effective, technically correct application of all examination skills, physical examination with minor errors, or corrected during execution | Revealed basic dataPhysical examination skills learned | Incomplete or InaccuratePhysical examination skills need to be improved | Important data are missing.Inappropriate physical examination skills |
| 6 | Medical history presentation | Maximum full description and presentationUnderstands the problem in a complex, connects with the patient’s features | precise, focused; choice of facts shows understanding | Record is by form, includes all basic information; | Many important omissions, inaccurate or unimportant facts are often included | Lack of control of the situation, many important omissions, many clarifying questions |
|  |  |  |  |  |  |  |

**Point-rating assessment (check-list) of the ISW (independent student’s work) - creative task (maximum 90 points) + bonuses for English and time management**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **10** | **8** | **4** | **2** |
| **1** | **Problem solving** | The organized concentrated, allocates all questions which are falling into to the main revealed problem with a comprehension of a concrete clinical situation | Organized, the concentrated, allocates all questions which are falling into to the main revealed problem, but there is no comprehension of a concrete clinical situation | Not the concentrated, Derivation on the questions which are not falling into to the main revealed problem | Inaccurate, misses the main thing, disharmonious data. |
| **2** | **Information** | All necessary information on a subject in the free, serial, logical manner is completely conveyed The product form is adequately chosen | All necessary information in a logical manner, but with shallow inaccuracies is conveyed | All necessary information on a subject is explained chaotically, with not gross errors | Important information on a subject, gross errors is not reflected |
| **3** | **Significance** | Material is chosen on the basis of authentically established facts.  Manifestation of a comprehension on the level or quality of proofs | Some conclusions and the conclusions are formulated on the basis of assumptions or the incorrect facts. There is no complete comprehension of level or quality of proofs | Not the sufficient comprehension of a problem, some conclusions and the conclusions are based on the inexact and not proved data – doubtful resources are used | Conclusions and the conclusions are not proved or irregular |
| **4** | **Logic** | logical and well reasoning, has internal unity, provisions in a product follow one of another and are logically interdependent between themselves | Has internal unity, provisions of a product one of another follows, but there are inaccuracies | There is no sequence and logicality in statement, but it is possible to keep track of the main idea | Jumps from one on another, it is difficult to catch the main idea |
| **5** | **Recourses** | Literary data are submitted in logical interrelation, show deep study of the main and padding informational resources | Literary data show study of the main literature | Only ordinary recourses | Inconsistency and randomness in statement of data, an inconsistencyThere is no knowledge of the main textbookUsing of Google |
| **6** | **Practical application** | High | Good | moderate | no |
| **7** | **Patient focusing** | High | Good | moderate | no |
| **8** | **Applicability in future practice** | High | Good | moderate | no |
| **9** | **Presenation** | Correctly, to the place all opportunities of Power Point or other e-softs, the free possession of material, a sure manner of statement are used | It is overloaded or are insufficiently used visual materials, inexact possession of material | Visual materials are not informative  | Does not own material, is not able to explain it |
| **bonus** | **Time management**\* | 10For before deadline | In time | Good quality but a little late Minus 2-4  | After deadline more than 24 hours Minus 10  |
| **bonus** | **Rating**\*\* | 10  points additional | Outstanding work, for example: The best work in groupCreative approachInnovative approach to realization of a taskAccording to the proposal of group |
|  | \* The deadline is determined by the teacher, as a rule - the day of the boundary control\*\* thus, you can get 90 points as much as possible, to get above 90-you need to show a result higher than expected |