**MinistryofHealthofUkraine**

**KharkivNationalMedicalUniversity**

**III Medical Faculty**

**DepartmentofPediatrics №1 and Neonatology**

**Educationalprogramfortrainingspecialistsofthesecond (master's)**

**levelofhighereducationtraining 22 "Healthсare"**

**inspecialty 222 "Medicine"**

**Syllabus for**

**Urgent Aid in Paediatrics**

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| The syllabus of the discipline was approved at the meeting of the Department of Pediatric #1 and Neonatology Protocol from“\_\_\_” \_\_\_\_\_\_\_\_ 2020 № \_\_\_\_Head of Department\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ prof. Gonchar MO (signature) (surname and initials)“\_\_\_” \_\_\_\_\_\_\_\_ 2020 **Kharkiv – 2020** |  | Approved by the methodical commission of KhNMU on problems of professional training pediatric profile Protocol from“\_\_\_\_\_” \_\_\_\_\_\_\_\_\_ 20 \_\_\_\_\_ №Chairman of the methodical commission of KhNMU on problems of professional training pediatric profile\_\_\_\_\_\_\_\_\_\_\_\_ prof. Gonchar MO(signature) (surname and initials)“\_\_\_” \_\_\_\_\_\_\_\_ 2020  |

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**Direct consultations****:**time and location according to department schedule.

**On-line consultations**: Moodle, Zoom, Google Meet (schedule and location byprior agreement with a lecturer)

**Location:**Municipal Non-profit Organization of Kharkiv Regional Council “Regional Clinical Children Hospital

**General information**

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| --- | --- | --- |
| Name of indicators  | Field of knowledge, direction of training, educational and qualification level  | Characteristics of the discipline |
| Full-time studies |
| Number of credits - 3 | Educational program for training specialists of the second (master's) level of higher education training 22 "Healthсare"in specialty 222 "Medicine" | Normative |
| Number of hours– 90 | speciality:222 «Medicine» | **Year of study:** |
| 5th |
| **Semester** |
| 9th, 10th |
| **Lectures** |
| Hours forfull-time education form of study:classrooms - 30independent student work - 60 | Education level:Specialist of the second (master's) level | 2 h. |
| **Practicals, seminars** |
| 30h. |
| **Laboratory** |
| 0 h. |
| **Independent work** |
| 60h. |
| **Individual tasks:**  |
| Type of control:credit |

Educational program of higher education of Ukraine, second (master's) level, educational qualification, assigned - master's degree, field of knowledge - 22 Healthcare, specialty 222 “Medicine” is based on the Law of Ukraine«Про вищу освіту» and the resolution of the Cabinet of Ministers of Ukraine 01.02.2017 № 53 «Про внесення змін до постанови Кабінету Міністрів України від 29.04.2015 р. № 266», in accordance with the order of the Ministry of Education and Science of Ukraine dated 01.06.2016 № 600 «Про затвердження та введення в дію Методичних рекомендацій щодо розроблення стандартів вищої освіти»."

The program of the course determines the prerequisites for access to education, orientation and main focus of the program, the amount of ECTS credits required for a master's degree, a list of general and special (professional) competencies, normative and variable content of training, formulated in terms of learning outcomes and control requirements quality of higher education.

The department accepts qualified students of any race, national or ethnic origin, sex, age, people with special needs, any religion, sexual orientation, gender, veteran status or marital status for all rights, privileges, programs and activities, provided to university students.

Links to video annotation of the discipline (granting), etc.

The page of discipline in the system Moodle (granting)

**Objective:**to provide the training of highly qualified specialists in pediatrics, capable to solve complex problems of diagnosis and treatment of children with emergencystates.

**The main objectives** of the course are the acquisition by students’ competencies according to the general and professional competencies of the educational and professional program "Medicine" of the second level of higher education, specialty 222 Medicine:

• Integrated competencies:

ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves research and/or innovation and is characterized by complex and uncertain conditions and requirements.

• General competencies:

ability for abstract thinking, analysis and synthesis, ability to learn and to be modernly trained; the ability to apply knowledge in practical situations; knowledge and understanding of the subject area and understanding of professional activities; adaptability and action in a new situation; the ability to make informed decisions; work in a team; interpersonal interaction skills; Ability to communicate in the State language both orally and in writing; the ability to communicate in a foreign language; information and communication technology skills; certainty and perseverance about the tasks and responsibilities taken; the ability to act socially responsibly and consciously.

• Professional competencies in pediatrics:

Survey skills; Ability to identify and evaluate the necessary list of laboratory and instrumental studies; ability to establish a preliminary and clinical diagnosis of the disease; ability to determine the necessary regime of work and rest, the character of nutrition in the treatment of diseases; the ability to define the principles and nature of treatment of disease; ability to diagnose emergency conditions; Ability to define tactics and skills in emergency medical care; medical manipulation skills; The ability to plan and implement sanitary , preventive and anti-epidemic events, including infectious diseases; the ability to define tactics for the management of persons subject to dispensary supervision; ability to maintain medical records.

The study of this discipline forms social skills for applicants:

• Communicability (implemented through: the method of work of groups and brainstorming during the analysis of clinical cases, the method of presenting the results of independent work of their defense in the group),

• teamwork (implemented through: the method of working group and brainstorming during the analysis of clinical cases),

• conflict management (implemented through: business games),

• time management (implemented through: the method of self-organization during auditing in groups and individual work),

• leadership skills (implemented through: the method of presenting the results of individual work and theirdefense in the group).

**Discipline status:** the selective discipline is mixed - the discipline that has support in the Moodle system, teaching the discipline, combines traditional forms of classroom learning with elements of distance learning, which uses available interactive information technology (ZOOM, Moodle), face-to-face and distance counseling

**Methods of training.** Clinical (curation of children with somatic diseases), on phantoms, digital information (presentations, video materials, methodical recommendations, lectures), scientific (participation in scientific researches in the discipline), control (tests, situational tasks, assessment of practical skills,defense a case history) are used for carrying out the lessons

**Recommended literature**

1. NelsonTextbookofPediatrics 21th Edition. Robert M. Kliegman, JosephSt. Geme. Publisher: Elsevier. 2019. P. 4112.
2. Recommendations for V-VI students, Higher medical education institutions of the III-IV accreditation levels studying in English «Leukemoidreactionsinchildren» KhNMU, 2017.
3. Recommendations for V-VI students, Higher medical education institutions of the III-IV accreditation levels studying in English «Modernapproachestothediagnosticsofthemostcommonendocrineproblemsinchildren"KhNMU, 2017.
4. Recommendations for V-VI students, Higher medical education institutions of the III-IV accreditation levels studying in English «Differentiateddiagnosisofinflammatorykidneydiseasesinchildren» KhNMU, 2019.
5. Recommendations for V-VI students, Higher medical education institutions of the III-IV accreditation levels studying in English «Differentiateddiagnosisofinflammatorylowerrespiratorytract»KhNMU, 2019.
6. Recommendations for V-VI students, Higher medical education institutions of the III-IV accreditation levels studying in English «Neonatology»KhNMU, 2010.
7. Recommendations for V-VI students, Higher medical education institutions of the III-IV accreditation levels studying in English «Neonatology» KhNMU, 2012.
8. Pediatrics : textbook / O. V. Tiazhka [etal.] ; ed. O. Tiazhka. - 2nd ed., reprint. NovaKnyha, 2016.
9. Pediatry : guidanceaid. - 2nd ed., revisedandcorrected.O. Tiazhka [etal.] AUS MedicinePubl. House, 2015.

**Prerequisitesandco-requisitesofthediscipline**

The discipline "Emergency care course in pediatrics" is related to the disciplines of medical biology, normal and pathological anatomy, normal and pathological physiology, biochemistry, microbiology, propaedeutics of pediatrics, medical genetics, pharmacology and medical prescription, epidemiology and principles of evidence-based medicine, emergency care, emergency and also have practical skills in caring for pediatric patients and their management in outpatient and inpatient settings.

**Post-requisites of the discipline.**

 The main provisions of the training discipline should be applied in the study of related disciplines during the 6 year of study, is the basis for preparing for the licensed exam, preparing for study in higher education institutions at the programs of the third educational and scientific level of higher education.

**Learning outcomes.**

This course is focused on the main problems of providing emergency care to children, considering the anatomical and physiological features of the children in different ages. Compensatory-adaptive capabilities in childhood are more labile, more depleted, which contributes to the development of critical conditions that are accompanied by dysfunction of vital organs and systems.Clinical experience can be obtained during practical lessons of the course according to the schedule of classes. Students during the course can take part in the curation and demonstration of children, focus on the modern treatment of this pathology. That is, the course covers the main both practical and theoretical skills of providing emergency care in various emergencies in children.

**Curriculum of the discipline.**

|  |
| --- |
| **Urgent Aid in Paediatrics (90 hours)3 credits** |
| **Topicsofpracticalclasses(30 hours)** |
| 1 | Terminal conditionsandclinicaldeathinchildren. Cardiopulmonaryresuscitationinchildrenofdifferentages. | 5 |
| 2 | Painsyndromeinchildren. Scalesforpain assessment inchildren. Pain syndromemanagement inchildhood. | 5 |
| 3 | Acuterespiratoryfailure. Airwayobstruction syndrome inchildren. Decision-making process of the pulmonary ventilation in childhood. | 5 |
| 4 | Differentialdiagnosisofacuteheartfailureandacutecirculationfailure. Generalprinciplesofintensivecarefordifferenttypesofshockinchildren. | 5 |
| 5 | Acutekidneyfailure. Featuresofmanagementofthechildwith a hemolyticanduremicsyndrome. Evaluationandcorrectionofwater-electrolyteandacid-basestatusofblood, nitrogenmetabolisminchildrenwithrenalfailure. | 5 |
| 6 | Comasinchildren. Concluding class | 5 |
| Total |  | **30** |
| **The topics of the individual work (60 hours)** |
| 1 | Principlesofprovidingemergencycaretochildrenatthepre-hospital andhospitalstages. Introduction totheworkoftheDepartmentofAnesthesiologyandIntensiveCare. | 5 |
| 2 | Hyperthermiainchildren. Typesoffeverinchildren. Emergencycaretochildrenwithhyperthermia. | 5 |
| 3 | Differentialdiagnosisofseizuresinchildren. | 5 |
| 4 | Life-threatening arrhythmias in children. Modernstandardsofemergencycare. | 5 |
| 5 | Acutepoisoningsinchildren. Principlesofdiagnosisandfirstaidforchildren. | 5 |
| 6 | Exogenousphysicalinjuriesinchildren (drowning, burns, frostbite, electricshock). Clinicalmanifestations. Diagnosis.Emergencycare. | 5 |
| 7 | Liverfailureinchildren. Etiology. Diagnosticcriteriaandclinicalmanifestations. Emergencycare. | 5 |
| 8 | Dehydrationinchildren. Etiology. Clinicalsignsanddiagnosticcriteria. Assessment ofdehydrationseverity inchildhood. Emergencycare. | 5 |
| 9 | Arterial hypertensioninchildren. Causesofprimaryandsecondaryarterial hypertensioninchildhood. Clinicalanddiagnosticcriteriaforhypertensivecrisisinchildren. Emergencycareforhypertensivecrisisinchildrenofdifferentages. | 5 |
| 10 | Differentialdiagnosis of diabetic comas. | 5 |
| 11 | Acuteallergicreactionsinchildren. Quincke'sedema. Urticaria. Severe skin reactions –Stevens-Johnson syndrome andLyell’s syndrome. Anaphylacticshock. | 5 |
| 12 | Critical statesinpediatrichematology. | 5 |
| Total |  | **60** |

**The politics and values of discipline**.

In order to successfully complete the relevant course, it is necessary to regularly attend practical classes; to have theoretical preparation for practical classes, according to the subject; not to be late and not to miss classes; perform all necessary tasks and work in each lesson; be able to work with a partner or in a group; contact the curators of the course on various issues on the subject of classes and receive it when you need it.

Students can discuss different tasks, but their performance is strictly individual. You are not allowed to write off, use any kind of software, tips, use a mobile phone, tablet or other electronic gadgets during classes for purposes other than the learning process. Students are not allowed to be late for practical classes.

Visiting patients during the curation in the hospital is possible, provided that students have the appropriate uniform, a health book with a note about the timely medical examination.

Students with special needs can meet with the teacher or warn him before the start of classes, it can be done by the head of the group on the students’ request. If you have any questions, please contact the teacher.

Students' participation in research and conferences on this topic is encouraged. AllstudentsofKhNMUareprotectedbytheRegulationsonpreventionand settlementofCasesRelatedtoSexualHarassmentandDiscriminationatKharkivNationalMedicalUniversity, designedtodetermineaneffectivemechanismforresolvingconflictsituationsrelatedtodiscriminationandsexualharassment. onthebasisofthefollowingregulationsofUkraine: ConstitutionofUkraine; LawofUkraine "OnEducation"; LawofUkraine "OnHigherEducation"; LawofUkraine "OnPrinciplesofPreventionandCounteractionofDiscriminationinUkraine"; LawofUkraine "OnEnsuringEqualRightsandOpportunitiesforWomenandMen"; ConventionfortheProtectionofHumanRightsandFundamentalFreedoms; ConventionfortheSuppressionofDiscriminationinEducation; ConventionontheEliminationofAllFormsofDiscriminationagainstWomen; GeneralRecommendation № 25 toArticle 4, paragraph 1, oftheConventionontheEliminationofAllFormsofDiscriminationagainstWomen, GeneralComment № 16 (2005) "Equal rights for men and women to use economic, social and cultural rights" (Article 3 of the International Covenant on Economic, Social and Cultural Rights; Committee on Economic, Social and Cultural Rights of the United Nations); education in the spirit of respect for human rights and fundamental freedoms (UNESCO), the Concept of the State Social Program for Equal Rights and Opportunities for Women and Men until 2021. Kharkiv National Medical University ensures education and work, that is free from discrimination, sexual harassment, intimidation or exploitation.The University admits the importance of confidentiality. All persons, responsible for the implementation of this policy, (staff of deans' offices, faculties, institutes and the Center of Gender Education, members of the student government and ethics committee, vice-rector for research and teaching) are confidential, regarding those, who report or accuse of discrimination. or sexual harassment (except where the law requires disclosure and / or when disclosure by the University is necessary to protect the safety of others).

KhNMU creates a space of equal opportunities, free from discrimination of any national, racial or ethnic origin, sex, age, disability, religion, sexual orientation, gender, or marital status. All rights, privileges, programs and activities, granted to students or staff of the University, apply to anybody, without exception, in case they are properly qualified. The anti-discrimination policy and the policy of counteracting sexual harassment of KhNMU are confirmed by the Codex of Corporate Ethics and the Charter of KhNMU.

The rules of behavior in University and on classes

It is important for students to follow the rules of good behavior at the university. These rules are common to all, they also apply to all teachers and staff and are not fundamentally different from the generally accepted norms.

During classes it is allowed:

- leave the audience for a short time if necessary and with the permission of the teacher;

- drink soft drinks;

- take photos of presentation slides;

- take an active part in the class

Forbidden:

- eat (except for persons whose special medical condition requires another - in this case, medical confirmation is required);

- smoking, drinking alcohol and even low-alcohol beverages or drugs;

* - use obscene language or use words that offend the honor and dignity of colleagues and faculty;
* - gambling;

- to damage the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter the premises and territories);

- shouting, shouting or listening to loud music in classrooms and even in corridors during classes.

**Plagiarism and academic integrity**

The Department of Pediatric №1 and Neonatology tolerance for plagiarism. Students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

**The procedure of informing about changes in the syllabus**: the necessary changes in the syllabus are approved at the methodological commission of KhNMU on the problems of professional training of the pediatric profile and are published on the website of Kharkiv National Medical University, the website of the Department of Pediatrics No. 1 and Neonatology of KhNMU.

**Policy of learningactivities assessment**

**Assessment of current learning activities (CLA).**Teachers make sure that every student received the necessary competence in the province included in the topics of practical classes. Assimilation of the topic (current control) is controlled in a practical lesson according to the specific goals. The following tools are used to assess the level of preparation of students: tests, solving situational problems, interpretation and evaluation of laboratory tests, methods of prescribing therapy, monitoring the acquisition of practical skills.

When assessing the mastery of each topic of the discipline the student is graded according to the traditional 4-point system: "excellent", "good", "satisfactory" or "unsatisfactory".

**Assessment of the discipline.**The final lesson (FL) is conducted in accordance with the program of academic discipline during the semester on schedule, during classes. Assessment of thediscipline is given to the student at the last (final) lesson. The final score for the current learning activity (CLA) and the final lesson (FL) is defined as the arithmetic mean of the traditional grades for each class and FL, rounded to 2 decimal places and listed in a multi-point scale according to the standard table 1 and «Instructions of assessment of current student’s learning activities» or recalculation average grades of CLA into score according to the ECTC, which teacher can get automatically using electronic journal of [Automated Control System](https://www.multitran.com/m.exe?s=automated+control+system&l1=1&l2=2) (ACS).Student should get minimum - 120 points, maximum - 200 points during the current learning activities.

**Assessment of students' independent work**

Assimilation of topics that are submitted only for independent work is checked during the current learning activities of topic on conformable classes.

**Assessment of individual student tasks(encouragement)** is carried out under the conditions of the teacher's tasks (report of the abstract in a practical lesson, report with a presentation in a practical lesson, report at scientific and practical conferences of the department, university, writing abstracts, articles, participation in the All-Ukrainian оlympiads). Points (not more than 10) are added as incentive additional points to the final score for current learning activities. The total amount of points for the current educational activity may not exceed 200 points.

Student should get minimum - 120 points, maximum - 200 points during the current learning activities.

After graduating from the discipline the student receives a credit.

**Recalculation of the average grade for the current activity into a multi-point scale**

Assessment of current learning activities (CLA).Recalculation of the average grade for current activities in a multi-point scale is carried according to the«Instructions of assessment of current student’s learning activities» (Table 1).

Assessment of the discipline. The final score for the current learning activity (CLA) and the final lesson (FL) is defined as the arithmetic mean of the traditional grades for each class and FL, rounded to 2 decimal places and listed in a multi-point scale according to the standard table 2.

Assessment of individual student tasks is carried out by the teacher: the abstract report at the practical lesson 0-2 points; report with presentation at the practical lesson 0-3 points, report at scientific and practical conferences of the department, university, writing theses, articles 0-5 points; participation in the Nationalоlympiads - for each activity 5 - 10 points (a total of not more than 10 points), which can be added as supplementaryencouraging points to the final score for current learning activities, calculated using Table 2 and are part of the assessment of the discipline.

Table 2

**Recalculation of the average grade for the current activity into a multi-point scale**

**(for disciplines completed by the credit)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 4-point scale | 200-point scale |  | 4-point scale | 200-point scale |  | 4-point scale | 200-point scale |
| 5 | 200 | 4.22-4,23 | 169 | 3.45-3,46 | 138 |
| 4.97-4,99 | 199 | 4.19-4,21 | 168 | 3.42-3,44 | 137 |
| 4.95-4,96 | 198 | 4.17-4,18 | 167 | 3.4-3,41 | 136 |
| 4.92-4,94 | 197 | 4.14-4,16 | 166 | 3.37-3,39 | 135 |
| 4.9-4,91 | 196 | 4.12-4,13 | 165 | 3.35-3,36 | 134 |
| 4.87-4,89 | 195 | 4.09-4,11 | 164 | 3.32-3,34 | 133 |
| 4.85-4,86 | 194 | 4.07-4,08 | 163 | 3.3-3,31 | 132 |
| 4.82-4,84 | 193 | 4.04-4,06 | 162 | 3.27-3,29 | 131 |
| 4.8-4,81 | 192 | 4.02-4,03 | 161 | 3.25-3,26 | 130 |
| 4.77-4,79 | 191 | 3.99-4,01 | 160 | 3.22-3,24 | 129 |
| 4.75-4,76 | 190 | 3.97-3,98 | 159 | 3.2-3,21 | 128 |
| 4.72-4,74 | 189 | 3.94-3,96 | 158 | 3.17-3,19 | 127 |
| 4.7-4,71 | 188 | 3.92-3,93 | 157 | 3.15-3,16 | 126 |
| 4.67-4,69 | 187 | 3.89-3,91 | 156 | 3.12-3,14 | 125 |
| 4.65-4,66 | 186 | 3.87-3,88 | 155 | 3.1-3,11 | 124 |
| 4.62-4,64 | 185 | 3.84-3,86 | 154 | 3.07-3,09 | 123 |
| 4.6-4,61 | 184 | 3.82-3,83 | 153 | 3.05-3,06 | 122 |
| 4.57-4,59 | 183 | 3.79-3,81 | 152 | 3.02-3,04 | 121 |
| 4.54-4,56 | 182 | 3.77-3,78 | 151 | 3-3,01 | 120 |
| 4.52-4,53 | 181 | 3.74-3,76 | 150 | Less than3 | Insufficient |
| 4.5-4,51 | 180 | 3.72-3,73 | 149 |  |  |
| 4.47-4,49 | 179 | 3.7-3,71 | 148 |
| 4.45-4,46 | 178 | 3.67-3,69 | 147 |  |  |
| 4.42-4,44 | 177 | 3.65-3,66 | 146 |  |
| 4.4-4,41 | 176 | 3.62-3,64 | 145 |  |  |
| 4.37-4,39 | 175 | 3.6-3,61 | 144 |  |  |
| 4.35-4,36 | 174 | 3.57-3,59 | 143 |  |  |
| 4.32-4,34 | 173 | 3.55-3,56 | 142 |  |  |
| 4.3-4,31 | 172 | 3.52-3,54 | 141 |  |  |
| 4,27-4,29 | 171 | 3.5-3,51 | 140 |  |  |
| 4.24-4,26 | 170 | 3.47-3,49 | 139 |  |  |

Head of the Department of Pediatrics No. 1 and

neonatology, MD, PhD, Professor Gonchar M.O.