MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline Public Health and Healthcare, Health Economics

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) IV-V / 8, 9

Form of the interim assessment **Examination**

Department of Public Health, Healthcare and Social Work

Discipline workload **216** (academic hours) / **6** (credits)

Approved at the department meeting

Minutes No.

June 21th 2020

Head of the department

E.A. Mordovsky

Author and compiler:

Varakina Zhanna Leonidovna, Dean of the Faculty of General Medicine, Associate Professor of the Department of Public Health, Healthcare and Social Work, Doctor of Medical Sciences

Arkhangelsk, 2020

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to develop competence on the basis of formation of system of natural scientific representations about influence of social conditions and factors of the external environment on population's health for development of preventive measures, for its improvement and medical service enhancement. |
|-------------------------|--|
| Tasks of the discipline | to investigate the state of the population health for the purpose of its maintenance, strengthening and recovery; to organize medical prevention aid to the population; |
| | - to apply and get information analysis about the population health and activity treatment-and-prevention and sanitary-and-prevention institutions for the offer of actions for the improvement of quality and efficiency of the medical and prevention aid; |
| | - to teach students the bases of economy, marketing, planning and financing of management, innovative processes in public health services, legal and ethical aspects of medical activity; |
| | - to teach students managerial processes by the quality of medical aid. |

2. Position of the course (module) within the structure of the educational program

The program is drawn up following the requirements of the Federal State Education Standard (FSES) in the training field: 31.05.01 General Medicine. Attributed to the cycle of basic disciplines.

Block 1. Basic part.

- 2.2. The basic knowledge required to study the discipline is formed:
- in a cycle of humanitarian, social and economic disciplines, including: philosophy; bioethics, history; economy; psychology and pedagogics; medicine history, jurisprudence; a foreign language;
- in a cycle of mathematical, natural-science, medical and biologic disciplines including: biology; chemistry; physics and mathematics; medical computer science;
- in a cycle of professional disciplines, including: the general hygiene; epidemiology, obstetrics and gynecology, therapy, surgery.
- 2.3. Discipline Public health and health, health economics is a precursor to the study of disciplines: Faculty pediatrics, endocrinology, pediatric surgery, polyclinic and emergency pediatrics, hospital Pediatrics and other clinical disciplines.
- 3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed | Competences | | | | | |
|---------------------|---|---|---|--|--|--|
| competences | a student has | a student | | | | |
| | knowledge of | able to | masters | | | |
| GCC – No. | | ultural competend | | | | |
| 3 | fundamentals of preventive medicine, organization of preventive measures aimed at improving the health of the population; methods of sanitary and educational work; diseases associated with adverse effects of climatic and social factors | assess the quality of medical-diagnostic and rehabilitation-preventive assistance to the population; carry out with the attached population actions for primary prevention of the most frequently occurring diseases, to promote a healthy lifestyle; calculate the indicators of efficiency of activity of medical organizations | methods of correction of natural, social and other living conditions of the child population in order to strengthen health; methods of prevention of infectious, parasitic and non-infectious diseases; methodology of development of individual programs of prevention of diseases; methods of formation of the main components of a healthy lifestyle; consolidating indicators characterizing the degree of development of the health care | | | |
| GPC -No. | Canaral pro | ofessional compete | economy | | | |
| 3 | basic principles of | calculate the | consolidating | | | |
| J | financing the health system; basic principles governing the operation of the health system | efficiency of the medical institution | indicators characterizing the degree of the health care economy development | | | |
| PC -No. | Profess | ional competences | | | | |
| 4 | methodology of calculation of indicators of medical statistics, bases of application of | analyze medical information based on comprehensive | to find and critically evaluate scientific and | | | |

| | statistical methods in | principles of | medical |
|----|---|---|---|
| | medical researches, use of statistical indicators at an assessment of a state of health of the population and activity of the medical organizations; types of experimental and epidemiological studies and their purpose | evidence-based medicine; establish causal relationships of changes in health status from the effects of environmental factors; develop a programme for the development and analysis of experimental and epidemiological studies | literature; methodology of calculation of indicators of medical statistics; methods of analysis of information obtained in experimental and epidemiological studies; methodology of selection of statistical criteria of medical information processing |
| 7 | issues of disability examination; diseases associated with adverse effects of climatic and social factors; social insurance and social security, fundamentals of insurance medicine organization in the Russian Federation, comparative characteristics of health care systems in the world | prepare appropriate medical documentation; determine the need for referral of the patient for medical and social examination, levels of disability and morbidity with temporary disability | methods of morbidity analysis with temporary disability; methods of calculation of indicators of general and primary disability |
| 16 | factors shaping human health (environmental, occupational, climatic, epidemic, social, epidemiological, psycho-emotional, professional, genetic); fundamentals of preventive medicine, organization of preventive measures aimed at improving the health of the population; | carry out with the population measures for primary prevention of the most common diseases, to promote a healthy lifestyle | methodology of development of disease prevention individual programs; methods of forming the main components of a healthy lifestyle; methods of treatment of |

| | .1 1 0 1 | | . 1 |
|----|--|------------------------------|-----------------------------|
| | methods of sanitary and | | tobacco |
| | educational work; | | dependence |
| | diseases associated with | | |
| | adverse effects of | | |
| | climatic and social | | |
| 17 | factors fundamentals of | onolyza | mothedale are af |
| 17 | organization of medical | analyze performance | methodology of indicators |
| | C | indicators of | calculation of |
| | (outpatient and inpatient) care to | medical | polyclinic, |
| | various groups of the | organizations | hospital, |
| | population, principles | structural units; | maternity |
| | of medical examination | assess the | hospital, female |
| | of the population, | effectiveness of | consultation |
| | rehabilitation of | modern | work, |
| | patients; | medical- | methodology |
| | features of the | organizational | for calculating |
| | organization and scope | and socio- | the |
| | of work of the | economic | effectiveness of |
| | outpatient physician, | technologies in | medical |
| | modern diagnostic | the provision of | services |
| | capabilities of the | medical | |
| | polyclinic service; | services to | |
| | organization of | patients | |
| | obstetric and | | |
| | gynecological care to | | |
| 10 | the population | | |
| 18 | quality management of | carry out the | methods, |
| | medical care and activities of the medical | analysis of the | models of |
| | organization | organization activity and on | management of medical care |
| | Organization | the basis of an | |
| | | indicators | quality and activity of the |
| | | assessment of | medical |
| | | its work, to take | organization |
| | | necessary | 5154112411011 |
| | | measures for | |
| | | improvement of | |
| | | forms and | |
| | | methods of | |
| | | work; | |
| | | use forms and | |
| | | methods of | |
| | | work aimed at | |
| | | improving the | |
| | | quality of | |
| | | medical care to | |
| | | the population, | |
| | | the quality of | |
| | | the medical | |
| | | organization | |
| 21 | modern methods of | develop a | methodology of |

| collection, analysis and | program of | statistical |
|--------------------------|-----------------|--------------|
| development of medical | collection, | criteria |
| information | statistical | selection in |
| | analysis of | medical |
| | health | information |
| | information and | processing |
| | develop | |
| | appropriate | |
| | measures aimed | |
| | at improving | |
| | and preserving | |
| | the health of | |
| | men and | |
| | women | |

4. Volume of the course and types of academic work:

Total workload of the course is 6 credits.

| | Type of the academic work | Total hours | Term |
|--------------|---------------------------------|-------------|------|
| Discipline | | | |
| workload | Lectures (L) | 34 | 8,9 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | 85 | 8,9 |
| | Clinical practicals (CP) | | |
| | Laboratory-based practicals | | |
| | (LBP) | | |
| | Simulation-based practicals | | |
| | (SBP) | | |
| | Preparation for the examination | 33,7 | 9 |
| | (PE) | | |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 9 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 61 | 8,9 |
| | Examination control (EC) | 0,3 | 9 |
| | Total course workload | 216 | 8,9 |
| | | | |

5. Course content:

5.1. Content of the course sections

| No | Name of the course section | Content of the section |
|----|-------------------------------------|---|
| 1 | 2 | 3 |
| 1 | Theoretical bases of public health. | Introduction to public health and health care. World Health Organisation (WHO). |
| 2 | Public health history. | A history of public health. |

| 3 | Bases of medical statistics and organization of statistical research. The statistical analysis. | Introduction to Evidence-based medicine. Medical statistics as a science and subject of teaching. Methods of statistical analysis of public health. Absolute and relative values. Graphic display of statistical values. Dynamic series. Representativeness of the attribute. Types of study. Validity. Potential errors in epidemiological studies. Causation in epidemiology Average values and criteria of feature diversity. Variation series. Basic statistics. The relationship between the signs. Methods of standardization. Assessment of the reliability of the research results. Non-parametric methods |
|---|---|--|
| 4 | Public health and its factors. | Physical development. Communicable diseases as a public health problem. Noncommunicable diseases as a public health problem. Medical and demographic aspects of population statics and dynamics. Methods of evaluation and analysis of demographic indicators. Medical and demographic aspects of population reproduction. Methods of study. Measuring health and disease. Morbidity. Disease analysis methodology. |
| 5 | Organization of medical aid to the population. National health systems. | Organization of outpatient care to the population. Performance indicator. Organization of hospital care. Performance indicator. The system of maternity and child care. Organization of pediatric polyclinic work. Organization of the children's hospital work. Performance indicator. National Health care systems. Organization of public health systems. Family health. Organization of medical care on the principle of a General practitioner. Medical and social examination. Disability. Rehabilitation |
| 6 | Health promotion. Modern problems of the prevention. | Health promotion. Risk factors of non communicable and communicable diseases. The national project «Health care». Physical development as a criterion for assessing the health of the population. Epidemiology and prevention. Lifestyle. Influence of healthy lifestyle on quality of life. |

| 7 | Marketing, healthcare management, | Health care management. | | | | |
|---|-----------------------------------|---|--|--|--|--|
| | health economics. | Health care marketing. | | | | |
| | | Medical services market. Demand and | | | | |
| | | supply. Leadership | | | | |
| | | Health policy. Categories, goals, types, | | | | |
| | | health policy objects. Implementation and | | | | |
| | | evaluation. | | | | |
| | | Health policy. | | | | |
| | | Monitoring and evaluation of human | | | | |
| | | resources for health. | | | | |
| | | The basics of planning. Economics and | | | | |
| | | health care financing. Types of health care | | | | |
| | | efficiency (medical, social, economic). | | | | |
| | | Management and Marketing of Health Care. | | | | |
| | | Types of management. | | | | |
| | | | | | | |

5.2. Course sections and types of studies

| No | Name of the course section | L | S | P | СР | LBP | SBP | UW | Total hours |
|----|---|----|---|---|----|-----|-----|----|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | Theoretical bases of public health. | 4 | | | | 10 | | 5 | 19 |
| 2 | Public health history. | 4 | | | | | | 5 | 9 |
| 3 | Bases of medical statistics and organization of statistical research. The statistical analysis. | 2 | | | | 20 | | 10 | 32 |
| 4 | Public health and its factors. | 8 | | | | 10 | | 5 | 23 |
| 5 | Organization of medical aid to the population. National health systems. | | | | | 20 | | 10 | 30 |
| 6 | Health promotion. Modern problems of the prevention. | 6 | | | | 5 | | 10 | 21 |
| 7 | Marketing, healthcare management, health economics. | 10 | | | | 20 | | 16 | 46 |
| | | | | | | | | | 36 |
| | Total | 34 | | | | 85 | | 61 | 216 |

6. Interactive forms of studies

| No | Name of the course section | Interactive forms of studies | Duration (hours) |
|----|----------------------------------|------------------------------|------------------|
| 1 | Healthy life style. | Round table | 5 |
| 2 | Key indicators in public health. | Case-study | 5 |
| 3 | National health systems. | Case-study | 10 |
| 4 | Demand and supply. | Case-study | 5 |
| | | Total (hours) | 25 |

| Total (% of in-class learning) | 21,0% |
|--------------------------------|-------|

7. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No | Name of the course section | Types of the unsupervised work | Forms of control |
|----|--|---|-------------------|
| 1 | Theoretical bases of public health. | a report | pass/fail |
| 2 | Public health history. | a report | pass/fail |
| 3 | Bases of medical statistics and organisation of statistical research. The statistical analysis. | Control work on statistics with verification | pass/fail |
| 4 | Public health and its factors. | Test tasks in the Moodle system. Making a multimedia presentation on the topic | Test pass/fail |
| 5 | Organisation of medical aid to the population. National health systems. | Test tasks in the Moodle system. Making a multimedia presentation on the topic | Test pass/fail |
| 6 | Health promotion. Modern problems of the prevention. | Test tasks in the Moodle system. | Test |
| 7 | Marketing, healthcare management, health economics. | a report | pass/fail |

8. Forms of control

8.1. Current forms of control

- oral (an interview, a report)
- written (tests, term papers, presentations).

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the section 'Evaluation tools'.

8.2. Forms of interim assessment (examination)

Stages of the interim assessment

Questions for a pass/fail test and an examination, a theme list of test collections and situational problems are shown at the section 'Set of the evaluation tools for the current control and interim assessment of students'.

9. Library and information materials of the course

9.1. Compulsory literature

1. Health Promotion. Disciplines, diversity, and developments/ed. R. Bunton, G. Macdonald. -2th. ed. -London; New York: Routledge, 2004. -325 p.

- 2. Russian Healthcare System in Transition [Электронный ресурс] : учеб. пособие/ L. I. Menshikova [и др.]. -Архангельск: Изд-во Северного государственного медицинского университета, 2019. -60 с.- URL: http://nb.nsmu.ru/cgi-
- bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/R95-984884
- 3. Tulchinsky T. H. The New Public Health: An Introduction For The 21st Centure/ T. H. Tulchinsky, E. A. Varavikova. -San Diego; New York; Boston: Academic Press, 2000. -882 p.
- 4. Krukemeyer M. Introductory Guide to Medical Training. From Basic Sciences to Medical Specialties [Электронный ресурс] / M. Krukemeyer. 1st ed. [Б. м.] : Thieme, 2015. URL: https://medone-education.thieme.com/ebooks/2093828?fromSearch=true#/ebook_2093828 SL80527499

9.2. Supplementary literature

- 1. A new public health in an old country: an EU-China conference in Wuhan, China, October 24-29, 1998/ Nordic School of Publ. Health, Univ. of Turin, Hubei Medical Univ.; ed.: F. Cavallo, L. Kohler, S. Su. -Goteborg, 2000. -242 p.
- 2. Berntsson L. Health and well-being of children in the five Nordic countries in 1984 and 1996 : diss. from the Nordic School of Public Health/ L. Berntsson. Uddevalla: MediaPrint, 2000. -200 p.
- 3. Brimhealth. Baltic Rim Parthership for Public Health 1993-2003: an unusual evaluation of an unusual project/ed. S. Bihari-Axelson, I. Borup, E. Wimmerstedt. -Goteborg: Nordic School of Public Health, 2004. -88 p.
- 4. Cabrera C. Socio-economic Status and Health in Women: population-based studies with emphasis on lifestule and cardiovascular disease/ C. Cabrera; Nordic School of Publ. Health, Sahlgrenska Acad. at Goteborg Univ.. -Goteborg: NHV, 2005. -148 c.
- 5. Nutbeam D. Theory in a Nutshell: a practical guide to health promotion theories/D. Nutbeam, E. Harris. -2th. ed.. -Sydney: The McGraw-Hill, 2007. -81 p.
- 6. Planning health promotion programms : An intervention Mapping Approach/ L.
- K. Bartholomew [et al.]. -2th. ed.. -San Francisco: A Wiley Imprint, 2006. -767 p.
- 7. Rothman K.J. Epidemiology an introduction/ K. J. Rothman. -Oxford: Oxford University Press, 2002. -223 p.
- 8. Reshetnikov A.V. Sociology of Medicine [Электронный ресурс]: textbook/ A. V. Reshetnikov. -Moscow: GEOTAR-Media, 2020. -368 c.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970454473.html

9.3. List of the Internet resources required for mastering of the course (module)*

- 1. www.pubmed.com
- 2. www.who.int

- 3. http://www.ecsocman.edu.ru/db/msg/128181.html
- 4. http://economzdrav.mednet.ru/
- 5. http://en.unesco.org/
- 6. http://www.undp.org/
- 7. http://www.unicef.org/
- 8. http://www.healthpromotionjournal.com/
- 9. http://www.journals.elsevier.com/public-health/
- 10. http://lib.nsmu.ru/lib/
- 11. http://www.iprbookshop.ru/

9.4. List of the information technologies used in the educational process of the course (module)

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

Наименование помещений для проведения всех Адрес (местоположение) помещений для видов учебной деятельности, предусмотренной проведения всех видов учебной деятельности, учебным планом, в том числе помещения для предусмотренной учебным планом (в случае реализации ФГБОУ ВО СГМУ (г. Архангельск) самостоятельной работы, с указанием перечня основного оборудования, учебно-наглядных Минздрава России программы в сетевой форме пособий и используемого программного дополнительно указывается наименование организации, с которой заключен договор) обеспечения аудитория ДЛЯ проведения 163000, г. Архангельск, просп. Троицкий, д. 51 лекционного типа № 2102 имени Н.П.Бычихина, административный учебный корпус, 1 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 300 мест. б) наборы демонстрационного оборудования проектор, моноблок, экран, колонки в) перечень учебно-наглядных пособий: таблицы, стенд г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, 163000, г. Архангельск, просп. Троицкий, д. 51 групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 2451, административный учебный корпус, 4 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 44 места. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины. Схемы по темам занятий г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163000, г. Архангельск, просп. Троицкий, д. 51 групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 2442 административный учебный корпус, 4 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихсяна 30 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Лицензионное inspector. соглашение №1051-08 от 10.04.2008, бессрочно Компьютерный класс № 2440 административный 163000, г. Архангельск, просп. Троицкий, д. 51 учебный корпус, 4 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 11 мест. б) наборы демонстрационного оборудования компьютеров, принтер, мультимедийный проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows

| Server CAL 2008 Device CAL. Номер лицензии | |
|---|--|
| 46850049, бессрочно | |
| Radmin Viewer 3. Radmin Server 3. Номер документа | |
| 11001793 | |
| Traffic inspector. Лицензионное соглашение | |
| №1051-08 от 10.04.2008, бессрочно | |

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of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline **Dermatovenerology**

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) V / 9

Form of the interim assessment **Credit**

Department of Skin and Venereal Diseases

Discipline workload 108 (academic hours) / 3 (credits)

Approved at the department meeting

Minutes No.

June 24th 2020

Head of the department

S.L. Kashutin

Authors and compilers:

Kashutin Sergey Leonidovich, Head of the Department of Skin and Venereal Diseases,
Associate Professor of the Department of Skin and Venereal Diseases, Doctor of Medical
Sciences; Pukhova Ksenia Gennadievna, Assistant Professor of the Department of Skin
and Venereal Diseases; Korolev Konstantin Kirillovich, Assistant Professor of the
Department of Skin and Venereal Diseases

Arkhangelsk, 2020

1. Goal and tasks of the mastering of the course:

| Goal of the discipline | The goal of the discipline is to develop students' skills in diagnostic and treatment of skin and venereal diseases. |
|-------------------------|--|
| Tasks of the discipline | - to teach students to carry out measures on formation of motivated attitude of the population to preservation and strengthening of their health and health of other people in a tense epidemiological situation of infectious skin and venereal diseases; |
| | - to know the organization of prophylactic and anti-epidemic measures of preventing the occurrence and spread of contagious skin and venereal diseases; |
| | - to familiarize students with the prevalence, etiology, pathogenesis, clinical signs, principles of treatment of skin and venereal diseases; |
| | - to form students' skills in diagnosing and treatment of emergency dermatological conditions; |
| | - to learn to use means of herbal medicine, the main resort factors in rehabilitation of the patients with skin diseases. |

2. Position of the course (module) within the structure of the educational program

The discipline of "Dermatology" is studied in the 10 semester, refers to the cycle of professional disciplines of the educational standard of higher professional medical education "General medicine". Block 1. Basic part.

The basic knowledge required for the study of the discipline is studied:

- on the cycle of humanitarian disciplines (philosophy, bioethics, education, psychology, law, history of medicine, economics, Latin, foreign language);
- on the cycle of mathematical, scientific, medical and biological disciplines (mathematics, physics, chemistry, biochemistry, biology, medical science, anatomy and topographic anatomy, microbiology, virology, immunology, histology, cytology, normal physiology, pathological anatomy, pathophysiology, physiology, pharmacology);
- on the cycle of professional disciplines (general hygiene, public health monitoring, clinical laboratory diagnostics, propaedeutics internal medicine, internal medicine, general physiotherapy, endocrinology, professional diseases, general surgery, Intensive Care and anesthesiology, surgical diseases, urology, radiodiagnosis, disaster medicine, life safety, medical rehabilitation, medical genetics).

Teaching of the discipline must be carried out on the basis of the Arkhangelsk regional dermatology and venearology clinic. The training material on the subject "Dermatology" is mastered by the students systemically, with the teaching of the

common issues of diagnosis and treatment precedes teaching the basics of private pathology. The focus is on clinical signs of skin and venereal diseases, modern methods of instrumental and laboratory diagnosis using knowledge of the latest concepts of etiology and pathogenesis of diseases, as well as new methods of treatment and rehabilitation.

3. List of planned learning outcomes of the discipline (module) in connection to the planned outcomes at completion of the educational program

| Codes of developed competences | Competences | | |
|--|--|---|---|
| • | a student has knowledge of | a student is able to | a student masters |
| PC -№ | Professional competences | | |
| PC-2 ability and readiness to perform preventive medical examinations, periodic health examinations and provide follow-up care | - anatomical and physiological characteristics of the skin of adults and children; | -to assess morphological, physiological state and pathological processes in the human body. | -methods morphological, physiological States and pathological processes in the human body. |
| PC-5 readiness to collect and analyze patient's complaints and medical history, examination results, laboratory, instrumental, forensic and other data to understand the patient's condition or recognize the presence or absence of disease | -problems of etiology, pathogenesis and prevention of skin diseases and their connection with pathology of internal organs, occupational hazard and poor healthy lifestyle; -the basic principles of General clinical examination of children, adolescents and adults with skin and venereal diseases; -the main symptoms of skin and venereal diseases; -modern methods of clinical, laboratory, instrumental examination of the patients, their diagnostic capabilities; | -to conduct a subjective study of the patient; -to conduct an objective examination of the patient; evaluate the data; to formulate the syndromic diagnosis and to plan additional research methods; to fill in the historyto establish a clinical diagnosis of the most common skin diseases that occur in the typical form, and to substantiate the diagnosis; -to take an integrated approach to the appointment laboratory research, make a plan of examination with the laboratory tests; -to be able to interpret the results of laboratory studies, including considering the continuity of outpatient, inpatient surveys; | -methods of General clinical examination (inquiry, inspection, palpation, percussion, auscultation, determination of properties of arterial pulse, measurement of blood pressure); -communication skills related to basic skills, clinical competence, patient-centered communication skills that enhance health status of patients and increase the efficiency of care by reducing diagnostic tests and referrals; -interpretation of results of laboratory and instrumental methods of diagnostics; algorithm deployed clinical diagnosis; algorithm of preliminary diagnosis with subsequent referral to the appropriate specialist; |

| PC-6 ability to recognize patient's major pathological conditions, symptoms, syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th revision | - morphological, physiological state and pathological processes in the human body - anatomical and physiological characteristics of the skin of adults and children; -problems of etiology, pathogenesis of skin diseases and their connection with pathology of internal organs, occupational hazard and poor healthy lifestyle; -the basic principles of General clinical examination of children, adolescents and adults with skin and venereal diseases; -the main symptoms of skin and venereal diseases; | -to assess morphological, physiological state and pathological processes in the human bodyto conduct a subjective study of the patient; - to formulate the syndromic diagnosis -to establish a clinical diagnosis of the most common skin diseases that occur in the typical form, and to substantiate the diagnosis; | -methods morphological, physiological States and pathological processes in the human bodymethods of General clinical examination (inquiry, inspection, palpation, percussion, auscultation, determination of properties of arterial pulse, measurement of blood pressure); -communication skills related to basic skills, clinical competence, patient-centered communication skills that enhance health status of patients and increase the efficiency of care by reducing diagnostic tests and referrals; -criteria for diagnosis of occupational diseases of the skin; |
|--|--|---|---|
| PC-8 ability to decide on management of patients with various nosological forms | - morphological, physiological state and pathological processes in the human body -urgent conditions in dermatology; -principles and methods of treatment of skin and venereal diseases; | to assess morphological, physiological state and pathological processes in the human bodyto provide first aid in emergency cases before the arrival of ambulance crews; -to provide necessary medical care, create an algorithm of treatment | algorithm, perform basic diagnostic and therapeutic measures on rendering the first medical care in emergency and lifethreatening condition; the ethical and deontological aspects of medical activities; - techniques of emergency care for acute dermal pathologies. |

4. Volume of the course (module) and types of the academic classes: Total workload of the course is **3** credits.

| | Type of the academic work | Total hours | Term |
|--------------------------------------|-----------------------------------|-------------|------|
| Discipline | | | |
| workload | Lectures (L) | 14 | 9 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 40 | 9 |
| | Laboratory-based practicals (LBP) | | |
| Simulation-based practicals (SBP) | | | |
| Preparation for the examination (PE) | | | |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | | |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 54 | 9 |
| | Examination control (EC) | | |

| Total course workload | 108 | 9 |
|-----------------------|-----|---|
| | | |

5. Contents of the course:

5.1. Contents of the sections of the course

| № п/п | Name of the course section | Content of the section |
|----------|----------------------------|--|
| 1. | General dermatology. | The structure of the skin. The epidermis, derma, subcutaneous fat, blood and lymphatic network, innervation of the epidermis, dermis, subcutaneous tissue. Skin appendages: sweat and sebaceous glands, nails, muscles of the skin. Neuro-receptor apparatus. |
| | | The physiology of the skin. Functions of the skin: protection thermoregulation, reception, secretion, resorption, respiration, metabolism, reflection, immune. The relationship between the skin and the vital functions of the body in health and disease. |
| | | Morphological elements. Primary and secondary elements, the relative position of the elements of the eruption (isolated elements, merging, grouping, erythroderma). Monomorphic and polymorphic rash, symmetrical and asymmetrical arrangement of the eruption, localization of the eruption. The meaning of skin biopsy for diagnosis. Examination of skin of the patient. Methods of examination, used in dermatology: clinical, histological, microbiological, physiological, biochemical, immunological. The techniques of dermatological clinical examination of the patient: determining the sensitivity and permeability of the skin., dermographism evaluation, checking of the muscle-hair reflex, the pharmacodynamic tests., hydrophilicity samples, symptoms of the pinch and the harness, chemical agents tests, iodine samples, layered scratchboard, diascopy, test with bellied probe, Besnier-Meshchersky symptom, Nikolsky sign, identification of scabies moves, luminescence, taking pathological material (hair, nails, scales). The main biochemical and serological tests used in dermatological practice. |
| | | Principles of treatment of dermatological patients. Formulations. Formulation in dermatology. |

| | | Topical steroids: mechanism of action, classification, indications, contraindications, systemic side effects. Systemic steroids: mechanism of action, classification, indications, contraindications, side effects, application schema. Antihistamines: mechanism of action, classification, indications, contraindications, side effects. Fizoterapiya. Diet therapy. |
|----------|------------------------------------|--|
| 2. | Noninfectious diseases of the skin | Preventional of dermatites. Definition of dermatitis: simple or contact, artificial in individuals with normal skin reactivity (etiology, differential diagnosis, treatment, prognosis); allergic or sensitizing (etiology, differential diagnosis, skin tests, treatment, prognosis). Concept of obligate and facultative irritants (allergens). Preventional of toksidermii. Definition, etiology and pathogenesis; Clinic, common symptoms, morphological types of reactions to certain medications; diagnosis of drug reaction (allergic history, skin tests, immunological tests); principles of treatment; prevention. Lyell's syndrome. Onset of the disease, common symptoms, clinical manifestations on the skin and mucous membranes, types of course, diagnosis, differential di agnosia, treatment. Eczema. Etiology; pathogenesis; Clinic, eczematous stage of the process, pathognomonic symptoms. Clinical forms of eczema: true, microbial, seborrheic, professional, infant. Histopathology eczema. The course; diagnosis; treatment (regimen, diet, hygienic water treatment); Treatment of typical eczema, widespread, including erythroderma resistant cases of eczema; indications for oral corticosteroids and / or parenteral, topical treatment, relapse prevention. Atopic dermatitis. Etiology, pathogenesis (endogenous and exogenous factors, the concept of atopy, disruption of the central nervous system), clinic, clinical classification, course, complications, prognosis, diagnosis, differential diagnosis, treatment (general and local, health resort), prevention. Urticaria. Etiology; pathogenesis, clinical variants; diagnosis, differential diagnosis, treatment; |
| <u> </u> | <u> </u> | o, |

Emergency aid for angioedema, prognosis, prevention.

Pruritic dermatoses.

Pruritus. The causes of itchy skin; pathophysiological aspects of itching. Itching as one of the symptoms of somatic diseases. Clinical variants of limited, spread, senile, winter, height pruritus. Treatment. Prevention.

Prurigo. The definition, pathogenesis, clinical forms, treatment.

Bullous autoimmune dermatoses.

Pemphigus. Classification, pathogenesis. The clinical picture of vulgar, leaf-shaped, vegetating, seborrheic pemphigus. Primary localization on the skin and mucous membranes. Diagnosis: direct and indirect Nikolsky sign, symptom of Asbo-Hansen, cytological examination of Ttsanka cells, histological examination of biopsy of the skin. Differential diagnosis. Treatment of patients with pemphigus acantholytic (corticosteroids and cytotoxic drugs, the treatment of "support" doses on an outpatient basis. Complications, their prevention and treatment, prognosis. Medications used in the treatment of pemphigus, their dosage, the diet of patients, external therapy, occupational expertise.

Duhring herpetiformis dermatosis. Etiology and pathogenesis; Clinic (complaints, the nature of lesions, laboratory tests, differential diagnosis, histopathology), treatment of sulfone drugs; atypical forms (trihofitoidnaya, ekzemopodobnye et al.).

Diseases of the skin appendages.

Psoriasis. Etiology, pathogenesis; Clinic (primary and secondary elements, pathognomonic symptoms, diagnostic tests, clinical variants, the stage, the defeat of the joints and internal organs); histopathology, diagnosis and differential diagnosis, treatment, physical therapy, spa treatment, relapse prevention.

Lichen planus. The etiology and pathogenesis, histopathology, clinical presentation (typical and atypical shapes, defeat the oral mucosa), diagnosis differentialny diagnosis, treatment, prevention of recurrence. Болезни соединительной ткани.

| | Lupus erythematosus. Etiology, pathogenesis, clinical variants of chronic lupus erythematosus; discoid, disseminated, centrifugal, deep; differential diagnosis, course, treatment. |
|-------------------------------------|---|
| 3. Infectious diseases of the skin. | Pyoderma. The composition of the normal flora of the skin and its function. Etiology, pathogenesis, factors that contribute to the development of piodermitov classification (by etiology, primary, depth, immunological reactivity). Mycosis. Dermatophytes, their biology, epidemiology, predisposing factors. Classification of the depth of defeat (keratomikozy, epidermomikozy, trihomikosis, deep mycoses). Keratomikosis. Chromophytosis: etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment, prevention. Feet mycosis. Clinical forms (squamous, intertriginoznoy, disgidroticheskaya acute mycosis, onychomycosis). Diagnosis, treatment, depending on the clinical form. Prevention. Trihomikosis. Microsporia, trichophytosis. Etiology, pathogenesis, classification, etiology (antropofilnymi, zoofilnye), clinical lesions of the scalp (surface shape, a deep form), clinical lesions smooth skin (with the defeat vellus hair without defeat vellus hair). Parasitic sycosis. The diagnosis, differential diagnosis. Treatment of systemic antifungals (indications, contraindications, monitoring of treatment), local antimycotics. Physiotherapy. Clinical supervision. Prevention. Deep mycoses. Blastomycosis, chromomycosis. Etiology, pathogenesis, diagnosis, differential diagnosis, treatment, prevention. Parasitic diseases. Scabies. Etiology, pathogenesis, the life cycle of itch mite, clinical, clinical varieties of scabies (scabious limfoplaziya, scabies "cleanly", "Norwegian" scabies). Complications scabies (allergodermia, eczematization, secondary infection). Diagnosis, treatment and control of cure, control measures, prevention. Lice. Head lice, etiology, pathogenesis, life cycle, clinical presentation, treatment, protivoeipidemicheskie with the activities, |

| | | T |
|----|-----------|---|
| | | prevention. Hanging lice etiology, pathogenesis, life cycle, clinical presentation, treatment, protivoeipidemicheskie event prevention. Pubic lice (pediculosis pubis), etiology, pathogenesis, life cycle, clinical presentation, treatment, protivoeipidemicheskie with the activities, prevention. |
| 4. | Syphilis. | Development stages of Venereology. Social aspects of sexually transmitted diseases. Methods of examination of patients with sexually transmitted diseases. Questions of ethics. Etiology, epidemiology. The immunity for the general classification. |
| | | Etiology and pathogenesis of syphilis. The causative agent, differencies between Treponema pallidum and saprophytic treponemes, the incubation period, epidemiology, general course of syphilis. Clinic of syphilis. |
| | | Primary period of syphilis. Clinical manifestations. Clinical characteristics of the chancre (a kind of chancre, diagnostic features). Characteristics of regional lymphadenitis. Complications chancre, differential diagnosis. |
| | | The secondary period of syphilis. Feature vysypnyh elements in the secondary period (spotted, papular, pustular syphilides), secondary fresh and secondary recurrent syphilis lesion of the oral mucosa, alopecia, leucoderma differential diagnosis. |
| | | Tertiary syphilis (tertiary active and tertiary hidden), the main clinical forms Bugorkova |
| | | gumoznogo and syphilis. Differential diagnosis. Congenital syphilis. Classification. Clinical |
| | | manifestations in various stages of congenital syphilis. |
| | | Diagnosis of syphilis. |
| | | Research on pale treponemu. Research on Treponema pallidum in the dark field. |
| | | Treatment and prevention of syphilis. Logistical |
| | | support, types of treatment (preventive, specific, prophylactic trial, epidemiological), treatment methods of preventive treatment, sptsificheskogo |
| | | treatment of primary, secondary, tertiary, and |

| | | congenital syphilis. Alternative treatment regimens. |
|----|----------------------|--|
| | | Treatment of pregnant women. Treatment of |
| | | children, the calculation of the dosage of drugs |
| 5. | Sexually transmitted | Gonorrhea. Characteristics of the pathogen. |
| | infections/ | Epidemiology. Gonorrhea in men, classification. |
| | | Complications. Laboratory diagnosis. Principles of |
| | | treatment of gonorrhea. The criteria for cure |
| | | gonorrhea. Prevention of gonorrhea. |
| | | Trichomoniasis. Pathogen. Epidemiology. Clinic |
| | | trichomoniasis in men. Laboratory diagnosis. |
| | | Principles of treatment. The criteria for cure |
| | | trichomoniasis. Prevention. |
| | | Chlamydia. Etiology, epidemiology, general |
| | | pathology, pathogenesis. Clinic of urogenital |
| | | chlamydia. Extragenital manifestations of infection. |
| | | Chlamydia and sterility. The methodology of the |
| | | survey. Modern methods of laboratory diagnostics. |
| | | Reiter's syndrome. Principles of treatment of |
| | | chlamydia and its complications. The criteria for cure |
| | | chlamydia. Prevention. |
| | | Mycoplasmosis. Epidemiology, etiology, clinical |
| | | features, diagnosis, complications. Principles of |
| | | treatment. The criteria for cure. Prevention. |
| | | Genital herpes. Pathogen. Epidemiology. The |
| | | clinical picture. Principles of treatment, prevention. |
| | | Anogenital warts. Pathogen. Epidemiology. The |
| | | clinical picture. Principles of treatment, prevention. |

Sections and types of studies

| No. | Name of the course | L | S | P | CP | LBP | SBP | UW | Total |
|-----|------------------------|----|---|---|----|-----|-----|----|-------|
| | section | | | | | | | | hours |
| 1 | General dermatology | 1 | - | ı | 3 | - | | 6 | 9 |
| 2 | Noninfectious | 9 | - | - | 17 | - | | 10 | 14 |
| | diseases of the skin | | | | | | | | |
| 3 | Infectious diseases of | 4 | - | - | 10 | - | | 10 | 19 |
| | the skin. | | | | | | | | |
| 4 | Syphilis. | 6 | - | - | 10 | - | | 5 | 16 |
| 5 | Sexually transmitted | 2 | - | - | 10 | - | | 5 | 14 |
| | infections/ | | | | | | | | |
| | Total (hours) | 22 | 0 | 0 | 50 | 0 | 0 | 36 | 108 |
| | | | | | | | | | |

5.2.1. Lectures

| Nº | | Volume |
|-------|--|--------|
| | Lectures topics | 8th |
| 1. | Methods of examination in dermatology. Primary and secondary elements | 1 |
| 2. | Dermatites. Eczema. | 1 |
| 3. | Professional skin diseases. | 1 |
| 4. | Atopic dermatitis. | 2 |
| 5. | Bullous autoimmune dermatoses. (pemphigus, Duhring herpetiformis dermatosis, exudative erythema multiforme). | 2 |
| 6. | Psoriasis | 1 |
| 7. | Lichen planus | 1 |
| 8. | Lupus erythematosus. | 1 |
| 9. | Tuberculosis of the skin | 1 |
| 10. | Mycosis. Trihomikosis. Feet mycosis. Candida mycosis. | 2 |
| 11. | Pyoderma. | 1 |
| 12. | Development stages of Venereology. Social aspects of sexually transmitted diseases. Syphilis (the causative agent, pathogenesis, classification). Primary period of syphilis | 2 |
| 13. | The secondary period of syphilis. Serodiagnosis | 2 |
| 14. | Tertiary syphilis. Congenital syphilis | 2 |
| 15. | Gonorrhea и non-gonorrhea urethrites | 2 |
| Total | | 22 |

5.2.2. Clinical practical training

| No | Practicals topics | Volume |
|-----|--|--------|
| 512 | 1 facticals topics | 8th |
| 1. | Methods of examination in dermatology. Clinical | |
| | analysis of primary and secondary elements. General | |
| | principles of treatment of skin patients. | 5 |
| | Physiotherapy. Resort treatment. Diet. | |
| | Psoriasis. Lichen planus. | |
| | Pruritus. Prurigo. | 5 |
| 2. | Professional skin diseases. Seborrhea. Acne disease. | |
| | Rosacea. Malignant tumors of the skin. | |
| 3. | Dermatitis. Toksidermii. Eczema. Atopic dermatitis. | 5 |
| | Urticaria. Curation. | |

| 4. | Pemphigus. Duhring dermatitis herpetiformis. Lupus | 5 |
|-------|--|----|
| | erythematosus | |
| 5. | Pediculosis. Scabies. Pustular disease. Scrofuloderma. | 5 |
| | Herpes. | |
| 6. | Mycosis. Trihomikosis. Feet mycosis. Candidiasis. Skin | 5 |
| | lesions in HIV infection. Erythema multiforme. | |
| 7. | The causative agent of syphilis (test on treponema | 5 |
| | pallidum). Primary syphilis. Secondary syphilis and its | |
| | differential diagnosis. | |
| 8. | Tertiary syphilis. Congenital syphilis and its prevention. | 5 |
| | Serological diagnosis of syphilis. Principles of treatment | |
| | of syphilis. Deontology in Venereology. | |
| 9. | Gonorrhea in men and its complications. | 5 |
| | Treatment of gonorrhea. | |
| 10. | Non- gonorrhea urethrites (trichomoniasis, chlamydia, | 5 |
| | mycoplasmosis). Genital herpes. Anogenital warts. | |
| Total | | 50 |

6. Interactive forms of studies

| No | Name of the course | Interactive forms of studies | Duration |
|----|------------------------|------------------------------------|----------|
| | section | | (hours) |
| 1. | General dermatology. | 1.1. Discussion on the DVD- | 1 hour |
| | | movie "Selection of the topical | |
| | | therapy'' | 1 hour |
| | | 1.2. Clinical analysis of patients | |
| 2. | Noninfectious diseases | 2.1. Discussion on the DVD- | 1 hour |
| | of the skin | movies | |
| | | 2.1.1. «Lichen planus.», | |
| | | «Psoriasis» | |
| | | 2.1.2. «Acne disease», | |
| | | «Acneiform dermatoses» | |
| | | 2.1.3. «Allergodermatoses», « | |
| | | Atopic dermatitis» | |
| | | 2.1.4. «Bullous dermatoses», « | |
| | | Lichen planus » | 1 hour |
| | | 2.2. Solution of case studies by | |
| | | topics: | |
| | | 2.2.1. Pruritus. Prurigo. | |
| | | Professional skin diseases. | |
| | | Seborrhea. Acne disease. | |
| | | Rosacea. Malignant tumors of the | |
| | | skin. | |
| | | 2.2.2. Dermatitis. Toksidermii. | |

| | | Eczema. Atopic dermatitis. Urticaria. Curation. 2.2.3. Pemphigus. Duhring dermatitis herpetiformis. Lupus erythematosus | 1 hour |
|----|---------------------------------|---|---------------|
| | | 2.3. Clinical analysis of patients | |
| 3. | Infectious diseases of the skin | 3.1. Discussion on the DVD-movies 3.1.1. «Tuberculosis», «Herpetic infections» 3.1.2. «Candidosis», « Up-to-date treatment of mycoses ». | 1 hour |
| | | 3.2. Solution of case studies by topics: 3.2.1. Pediculosis. Scabies. Pustular disease. Scrofuloderma. Herpes. 3.2.2. Mycosis. Trihomikosis. Feet mycosis. Candidiasis. Skin lesions in HIV infection. Erythema multiforme. 3.3. Clinical analysis of patients | 1 hour |
| 1 | Cymbilia | 4.1 Discussion on the DVD | 1 hour |
| 4. | Syphilis. | 4.1. Discussion on the DVD-movie « Syphilis »4.2. Solution of case studies by | 1 hour 1 hour |
| | | topics: 4.2.1. The causative agent of syphilis (test on treponema pallidum). Primary syphilis. Secondary syphilis and its differential diagnosis. 4.2.2. Tertiary syphilis. Congenital syphilis and its prevention. Serological diagnosis of syphilis. Principles of treatment of syphilis. Deontology in Venereology. 4.3. Clinical analysis of patients | 1 hour |
| 5. | Sexually transmitted | 5.1. Discussion on the DVD- | 1 hour |
| | infections. | movies 5.1.1.« Gonorrhea », « Trichomoniasis » | 1 hour |

| 5.2. Solution of case studies by | |
|------------------------------------|-------------|
| topics: | |
| 5.2.1. Gonorrhea in men and its | |
| complications. | |
| Treatment of gonorrhea. | |
| 5.2.2. Non- gonorrhea urethrites | |
| (trichomoniasis, chlamydia, | |
| mycoplasmosis). Genital herpes. | |
| Anogenital warts. | |
| 5.3. Clinical analysis of patients | 1 hour |
| Total hours for 5 -hour lesson | 28 (19,44%) |
| Total (% of classroom lessons) | 28 (19,44%) |

7. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| № | Name of the course section | Type of the unsupervised work | Forms of control |
|----|-------------------------------------|--|---|
| 1. | General dermatology. | Computer testing. Preparation of abstracts | Checking the abstracts |
| 2. | Noninfectious diseases of the skin. | Computer testing. Preparation of abstracts Medical history | Checking the abstracts Checking the medical histories |
| 3. | Infectious diseases of the skin. | Computer testing. Preparation of abstracts Medical history | Checking the abstracts Checking the medical histories |
| 4. | Syphilis. | Computer testing. Preparation of abstracts | Checking the abstracts |
| 5. | Sexually transmitted infections | Computer testing. Preparation of abstracts | Checking the abstracts |

8. Forms of control

- 8.1. Forms of current control
- 8.1.1. Computer testing.
- 8.1.2. Checking the abstracts

8.2. Forms of intermediate control (pass/fail test, exams)

Stages of the examination (pass/fail test)

1. Stage - computer testing

- 2. Stage Practical skills
- 3. Stage interview

9. Contents of the sections of the course

9.1 Compulsory literature

- 1. Kashutin, Sergey Leonidovich. Dermatovenerology [Electronic resource]: textbook / S. L. Kashutin. Arkhangelsk: Publishing house of the Northern state medical University, 2015. 138 p. URL: <a href="http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/K%2031-892310
- Chebotarev, V. V. Dermatology [Electronic resource]: textbook for students of higher educational institutions / V. V. Chebotarev, M. S. Ushakov. Moscow: GEOTAR-Media, 2016. 680 p.: Il. URL: http://www.studentlibrary.ru/book/ISBN9785970435670.html
- 3. Vladimirov, V. V. Skin and venereal diseases [Electronic resource]: Atlas: textbook / V. V. Vladimirov. Moscow: GEOTAR-Media, 2016. 232 p. URL: http://www.studentlibrary.ru/book/ISBN9785970435465.html

9.2 Supplementary literature

- Platonova, A. N. Dermatovenerology. Atlas [Electronic resource]: textbook / A. N. Platonova, A. L. Bakulev, S. R. Utts. - Moscow: GEOTAR-Media, 2017. - 136 p. - URL:
 - http://www.studentlibrary.ru/book/ISBN9785970440858.html
- 2. Dermatovenerology [Electronic resource]: textbook / ed.: A.V. Samtsov, V. V. Barbinov. 3rd ed., ISPR. and additional Moscow: GEOTAR-Media, 2016. 432 p. URL:
 - http://www.studentlibrary.ru/book/ISBN9785970436509.html
- 3. Essentials of dermatology for foreing students of medical universites [Электронный ресурс]: методический материал/ S. L. Kashutin [и др.]. Архангельск: Изд-во Северного государственного медицинского университета, 2017. -128 с.- URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DB N=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21 CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/K22-321761

9.3. List of the Internet resources required for mastering of the course

(module)*

| No | Internet resource | Description | |
|----|----------------------------|---|--|
| 1 | http://www.studmedlib.ru/ | Provides individual access to full-text | |
| | | database of relevant literature for | |
| | | medical and pharmaceutical | |
| | | education | |
| 2 | http://www.scopus.com | Provides access to bibliographic and | |
| | | scientometric database | |
| 3 | http://www.iprbookshop.ru/ | Provides individual access to full- | |
| | | text database of | |
| | | modern educational literature | |
| 4 | http://www.rosmedlib.ru/ | Provides access to electronic medical | |
| | | information and the educational | |
| | | system for interns, residents, post- | |
| | | graduates, listeners of courses of | |
| | | improvement of qualification | |

9.4 List of the information technologies used in the educational process of the course (module)

- software: certified, license programs of general and educational assignment, information

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical base necessary for the implementation of the educational process

| Наименование помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом, в том числе помещения для самостоятельной работы, с указанием перечня основного оборудования, учебно-наглядных пособий и используемого программного обеспечения | Адрес (местоположение) помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом (в случае реализации ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России программы в сетевой форме дополнительно указывается наименование организации, с которой заключен договор) |
|---|--|
| Учебная аудитория для проведения занятий лекционного типа № 2511 административный учебный корпус, 5 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 190 мест. б) наборы демонстрационного оборудования моноблок, проектор, экран | 163000, г. Архангельск, просп. Троицкий, д. 51 |

в) перечень учебно-наглядных пособий: таблицы, плакаты г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Homep лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163000, Архангельская область, г. Архангельск, групповых и индивидуальных консультаций, текущего пр. Сибиряковцев, д. 2, к.1 контроля и промежуточной аттестации № 5, 4 этаж Договор № 337 от 11.04.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГАУЗ Архангельской области «Архангельский клинический кожно-венерологический диспансер». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 24 места. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: наглядные пособия, раздаточный материал практическим занятиям по всем темам дисциплины, схемы по темам занятий г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Homep лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163000, Архангельская область, г. Архангельск, групповых и индивидуальных консультаций, текущего пр. Сибиряковцев, д. 2, к.1 контроля и промежуточной аттестации № 13, 4 этаж Договор № 337 от 11.04.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГАУЗ Архангельской области «Архангельский клинический кожно-венерологический диспансер». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал практическим занятиям по всем темам дисциплины,

схемы по темам занятий, ростомер, стетофонендоскоп

г) используемое программное обеспечение:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163000, Архангельская область, г. Архангельск, групповых и индивидуальных консультаций, текущего пр. Сибиряковцев, д. 2, к.1 контроля и промежуточной аттестации № 15, 4 этаж Договор № 337 от 11.04.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГАУЗ Архангельской облати «Архангельский клинический кожно-венерологический диспансер». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал практическим занятиям по всем темам дисциплины, схемы по темам занятий, ростомер, стетофонендоскоп г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7

Upgr. MS Windows Server CAL 2008 Device CAL. Номер

Radmin Viewer 3. Radmin Server 3. Номер документа

Traffic inspector. Лицензионное соглашение №1051-08

лицензии 46850049, бессрочно

от 10.04.2008, бессрочно

11001793

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education "NORTHERN STATE MEDICAL UNIVERSITY" of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline **Ophthalmology**

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) V/9

Form of the interim assessment Credit

Department of Family Medicine and Internal Diseases

Discipline workload 108 (academic hours) / 3 (credits)

Approved at the department meeting

Minutes No.

June 24th 2020

Head of the department

V.V. Popov

Author and compiler:

Zelentsov Roman Nikolaevich, Associate Professor of the Department of Family Medicine and Internal Diseases, Candidate of Medical Sciences

1. Purpose and objectives of the course

| Goal of the discipline | The goal of the discipline is to form students' skills in the diagnosis, prevention and treatment of ophthalmic diseases providing first medical aid in case of emergency at the pre-hospital level. |
|-------------------------|--|
| Tasks of the discipline | -to provide general professional training of a specialist, including basic knowledge on fundamental disciplines, etiology, pathogenesis, clinical manifestations, laboratory and functional investigations, diagnosis, identification of species and stages of treatment with the scientific modern advances in medicine and disease prevention; |
| | - to form professional knowledge, skills of a future doctor who will be able to manage to treat patients in outpatient conditions; |
| | - to create the ability to assess the results of studies in the diagnostics, differential diagnosis, prognosis, choice of appropriate treatment; |
| | - to improve knowledge on pharmacotherapy, including pharmacodynamics, pharmacokinetics, indications, contraindications, warnings and compatibility with the appointment of medical drugs. |

2. Location of the course within the educational program (EP)

The discipline "Ophthalmology" in the 9th semester of study refers to the cycle of professional disciplines of the Federal State Education Standard (FSES) for higher education in the field of 31.05.01 «General medicine».

Block 1. Basic part

Basic knowledge necessary for studying the discipline form:

- On the cycle of humanities (philosophy, bioethics, education, psychology, law, history of medicine, economics, Latin, foreign language);
- On the cycle mathematical, natural-scientific, medical and biological disciplines (mathematics, physics, chemistry, biochemistry, biology, medical science, anatomy and topographic anatomy, microbiology, virusology, immunology, histology, cytology, normal physiology, pass patological anatomy, pathophysiology, physiology, pharmacology);
- On the cycle of professional disciplines (general hygiene, public health monitoring, clinical laboratory diagnostics, propaedeutics internal medicine, internal medicine, general physiotherapy, endocrinology, occupational diseases, general surgery,

critical care medicine and anesthesiology, surgical diseases, urology, radiation diagnostic, disaster medicine, life safety, rehabilitation, medical genetics).

Teaching discipline must be carried out on the basis of the Arkhangelsk Regional Ophthalmological clinic. Training material for the discipline "Ophthalmology" mastered systematically students while teaching-methods of diagnosis and treatment of patients with common issues precedes teaching the basics of private pathology. The focus is clinical signs of ophthalmic diseases, modern instrumental and laboratory diagnosis, using knowledge continuously scans the concepts of etiology and pathogenesis of diseases, as well as new methods using treatment and rehabilitation.

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed | ed Competences | | |
|---------------------------|----------------------------|-------------------|------------------|
| competences | a student has | a student is | a student |
| | knowledge of | able to | masters |
| | Professional competences | | |
| GPC-6 | collect and analyze | collect and | collect and |
| readiness to keep medical | patient's complaints and | analyze | analyze |
| documentation | medical history, | patient's | patient's |
| | examination results, | complaints | complaints and |
| | | and medical | medical history, |
| | | history, | examination |
| | | examination | results, |
| | | results, | |
| PC – 5 | laboratory, | laboratory, | laboratory, |
| | instrumental, forensic | instrumental, | instrumental, |
| | and other data to | forensic and | forensic and |
| | understand the patient's | other data to | other data to |
| | condition or recognize | understand the | understand the |
| | the presence or absence | patient's | patient's |
| | of disease | condition or | condition or |
| | | recognize the | recognize the |
| | | presence or | presence or |
| | | absence of | absence of |
| | | disease | disease |
| PC – 6 | recognize patient's | recognize | recognize |
| | major pathological | patient's major | patient's major |
| | conditions, symptoms, | pathological | pathological |
| | syndromes, nosological | conditions, | conditions, |
| | forms in accordance | symptoms, | symptoms, |
| | with the International | syndromes, | syndromes, |
| | Statistical Classification | nosological | nosological |
| | of Diseases and Related | forms in | forms in |
| | Health Problems, 10th | accordance with | accordance |
| | revision | the International | with the |
| | | Statistical | International |
| | | Classification of | Statistical |

| PC – 8 | decide on management of patients with various nosological forms | Diseases and Related Health Problems, 10th revision decide on management of patients with | Classification of Diseases and Related Health Problems, 10th revision decide on management of patients with |
|---------|--|--|--|
| | | various nosological forms | various nosological forms |
| PC – 9 | manage and treat patients with various nosological forms in out-patient and day-care organizations | manage and treat patients with various nosological forms in out- patient and day- care organizations | manage and treat patients with various nosological forms in out- patient and day-care organizations |
| PC – 10 | provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do not involve a threat to patient's life and do not require emergency medical care | provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do not involve a threat to patient's life and do not require emergency medical care | provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do not involve a threat to patient's life and do not require emergency medical care |

4. Volume of the course and types of academic work:

Total workload of the course is 3 credits.

| | Type of the academic work | Total hours | Term |
|---------------------|-----------------------------------|-------------|------|
| Discipline | | | |
| workload | Lectures (L) | 14 | 9 |
| (in academic hours) | Seminars (Sem.) | | |
| | Practical classes (PC) | | |
| | Clinical practicals (CP) | 40 | 9 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination | | |
| | (PE) | | |
| | Preparation for the credit (PC) | | |

| 7 | Total course workload | 108 | 9 |
|---|--------------------------------|-----|---|
| | Examination control (EC) | | |
| 1 | Unsupervised work (UW) (total) | 54 | 9 |
| | Coursework (CW) | | |
|] | Exam consultations (EC) | | |

5. Course content:

5.1. Content of the course sections

| No | Name of the course section | Content of the section |
|---------------|--------------------------------------|--|
| 1 | 2 | 3 |
| OD.I.01.01.1 | Anatomical and physiological age | The development of the visual organ |
| | peculiarities of visual functions, | Features postnatal different |
| | methods of research and the body of | Development of the subsidiary bodies |
| | the visual analyzer functions in | eye and orbit |
| | people of different ages. | Normal anatomy and gistology organ of |
| | | vision |
| | | Optical nerve |
| | | The physiology of vision, visual |
| | | functions and methods of their study |
| OD.I.01.01.2. | Clinical refraction, accommodation, | The optical system of the eye |
| | optic vision correction. Binocular | Astigmatism, companion |
| | vision, pathology of oculomotor | emmetropia, hyperopia and |
| | apparatus. | myopia |
| | | Methods for eliminating defects |
| | | and treatment of refractive error |
| | | Physiology and pathology of binocular |
| | | polar view. |
| | | General characteristics and clinical |
| | | classification of the commonwealth |
| | | strabismus |
| | | Classification binocular |
| | | functions fusional ability |
| | | in the study on synoptofore |
| | | The differential diagnosis of |
| | | commonwealth strabismus |
| | | Paralytic strabismus |
| | | Optical correction ametropius |
| | | commonwealth strabismus |
| | | Modern methods and stages of treatment |
| | | commonwealth strabismus and clinical |
| | | assessment |
| | | Prevention commonwealth strabismus |
| OD.I.01.01.3. | Diseases of the protective apparatus | Diseases of the eyelids |
| | of the eye (eyelids, conjunctiva, | Diseases of the conjunctiva |
| | lacrimal organs, the orbit of the | Disorders of lacrimal organs |
| | sclera) in individuals of different | Dacryocystitis of newborns |
| | ages | Diseases of the orbit |

| | T | |
|---------------|--|--|
| | | Secondary and metastatic tumor of the |
| | | orbit |
| | | ITU and rehabilitation in diseases of |
| | | orbit and paranasal apparatus of the eye |
| | | Diseases of the sclera |
| OD.I.01.01.4. | Diseases of the optical apparatus of | Inflammatory diseases of cornea - |
| | the eye (cornea, lens, vitreous) in | keratitis |
| | individuals of various ages | Classification keratitis |
| | | Corneal Dystrophy |
| | | Surgical treatment of cornea diseases |
| | | ITU and rehabilitation in cornea diseases |
| | | Malformations of the lens |
| | | Cataracts |
| | | Acquired cataracts |
| | | Cataract Treatment |
| | | ITU and rehabilitation in lens pathology |
| | | The pathology of the vitreous |
| | | Treatment of vitreous pathological |
| | | changes |
| | | ITU and rehabilitation in vitreous |
| | | pathology |
| OD.I.01.01.5. | Diseases of the retina, optic nerve | Vascular diseases of the retina |
| | pathways, cortical areas of the visual | Acute circulatory disorders |
| | analyzer in people of different ages | of the retina |
| | | Chronic disorders of blood |
| | | Treatment of retinalITU and |
| | | rehabilitation in vascular retinal diseases |
| | | Inflammatory retinal diseases |
| | | Retinal disinsertion |
| | | Toxic lesions of visual nerve |
| | | Methil-alcoholicintoxication |
| | | Tobacco-alcoholic intoxication |
| | | Vascular lesions of optic |
| | | nerve (ischemic optical neuropathy) |
| | | Stagnant drive optic nerve |
| | | Optic atrophy |
| | | ITU and rehabilitation in pathology |
| OD.I.01.01.6. | Diseases of the vascular tract | Uveitis Uveitis |
| OD.1.01.01.0. | Discuses of the vascular tract | The general principles of therapy uveitis |
| | | ITU and rehabilitation in uveitis |
| | | Degeneration of the choroid |
| OD.I.01.01.7. | Neoplasm's organ of vision in | Tumors of the eyelid skin |
| OD.1.01.01.7. | children and adults | Tumors of the conjunctiva and cornea |
| | children and addits | Tumors of the conjunctiva and cornea Tumors of the lacrimal tract |
| | | Tumors of the choroid |
| | | |
| | | Tumors of the iris and ciliary |
| | | body The tumors of the retina |
| | | |
| | | Tumors of the orbit |
| | | Principles tool |
| | | research |
| | | General principles of treatment in the |

| | | onbthalmalagy |
|----------------|-------------------------------------|---|
| | | ophthalmology The use of lasers in the treatment of |
| | | |
| | | neoplasms organ of vision ITU and rehabilitation in case of |
| | | |
| OD 101 01 0 | | oncological ophthalmology |
| OD.I.01.01.8. | Glaucoma | The optic nerve in normal and in case of |
| | | glaucoma |
| | | Research methods of glaucoma |
| | | The pathophysiological mechanisms of |
| | | intraocular hypertension |
| | | Congenital glaucoma and children |
| | | Primary open-angleglaucoma(POAG) |
| | | Primary closed-angleglaucoma (PCAG) |
| | | Secondary glaucoma |
| | | Early diagnosis of glaucoma. |
| | | Clinical examination of patients |
| | | glaucoma. |
| | | Prophylactic examinations |
| | | Glaucoma Treatment |
| | | ITU and rehabilitation glaucoma |
| | | Hypertension eyes |
| OD.I.01.01.9. | Damage to the organ of vision, | Injuries of eye and orbit |
| | occupational injuries and diseases, | Contusion of the eyeball |
| | ocular prosthetics | Burns eyes |
| | - | Medical tactic |
| | | Other damage of the eyeball |
| | | Clinical examination after damage organ |
| | | of vision. Prevention production, |
| | | domestic, children's and sports injuries |
| | | of visual organ |
| | | ITU and rehabilitation after injuries |
| | | Suppress the organ of vision |
| | | Ocular Prosthetics |
| | | Indications for enucleation and approach |
| | | Conjunctival cavity nutrition |
| | | Prosthetics |
| | | Reconstructive surgery in |
| | | deformations conjunctiva, orbit and |
| | | cavity |
| OD.I.01.01.10. | Ophthalmic symptoms of common | Ophthalmic symptoms with overall |
| | diseases of the body's syndrome | organic diseases |
| | | Malformations of the eyeball |
| | | Changes in the visual organ: congenital |
| | | and hereditary diseases |
| | | General principles of the survey, |
| | | medical examination and treatment |
| 1 | I . | medicai examination and treatment |

5.2. Course sections and types of studies

| No. | Name of the course section | L | S | P | СР | LBP | SBP | UW | Total hours |
|-----|--|---|---|---|----|-----|-----|----|----------------|
| 1. | Anatomical and physiological age peculiarities of visual functions, methods of research and the body of the visual analyzer functions in people of different ages. | 2 | | | 5 | | | 3 | 10 |
| 2. | Clinical refraction, accommodation, optic vision correction. Binocular vision, pathology of oculomotor apparatus | 2 | | | 5 | | | 3 | 10 |
| 3. | Diseases of the protective apparatus of the eye (eyelids, conjunctiva, lacrimal organs, the orbit of the sclera) in individuals of different ages | 2 | | | 5 | | | 3 | 10 |
| 4. | Diseases of the optical apparatus of the eye (cornea, lens, vitreous) in individuals of various ages. | 2 | | | 5 | | | 3 | 10 |
| 5. | Diseases of the retina, optic nerve pathways, cortical areas of the visual analyzer in people of different ages. | 2 | | | 5 | | | 4 | 11 |
| 6. | Diseases of the vascular tract. | 2 | | | 5 | | | 4 | 11 |
| 7. | Neoplasm's organ of vision in children and adults. | 2 | | | 5 | | | 4 | 11 |
| 8. | Glaucoma | 2 | | | 5 | | | 4 | 11 |
| 9. | Damage to the organ of vision, occupational injuries and diseases, ocular prosthetics. | 2 | | | 5 | | | 4 | 11 |
| 10. | Ophthalmic symptoms of common diseases of the body's syndrome. | 2 | | | 5 | | | 4 | 11 |

6. Interactive forms of studies (in Moodle)

| No | Name of the course section | Interactive forms of studies | Duration (hours) |
|----|--|---|------------------|
| 1 | Anatomical and physiological age peculiarities of visual functions, methods of research and the body of the visual analyzer functions in people of different ages. | Abstract messages | |
| 2 | Clinical refraction, accommodation, optic vision correction. Binocular vision, pathology of oculomotor apparatus | Abstract messages | 1 |
| 3 | Diseases of the protective apparatus of the eye (eyelids, conjunctiva, lacrimal organs, the orbit of the sclera) in individuals of different ages | Analysis of the clinical situation of a diagnosis | 1 |
| 4 | Diseases of the optical apparatus of the eye (cornea, lens, vitreous) in individuals of various ages. | Analysis of the clinical situation of a diagnosis | 1 |
| 5 | Diseases of the retina, optic nerve pathways, cortical areas of the visual analyzer in people of different ages. | Analysis of the clinical situation of a diagnosis | 1 |
| 6 | Diseases of the vascular tract. | Analysis of the clinical situation of a diagnosis | 1 |
| 7 | Neoplasm's organ of vision in children and adults. | Analysis of the clinical situation of a diagnosis | 1 |
| 8 | Glaucoma | Analysis of the clinical situation of a diagnosis | 1 |
| 9 | Damage to the organ of vision, occupational injuries and diseases, ocular prosthetics. | Analysis of the clinical situation of a diagnosis | 1 |
| 10 | Ophthalmic symptoms of common diseases of the body's syndrome. | Analysis of the clinical situation of a diagnosis | 1 |
| | · | | 10 |
| | | | 9.8% |

7. Extracurricular self-studies of students

| No | Name of the course section | Types of self-studies | Forms of control |
|----|--|-------------------------|------------------|
| 1 | Anatomical and physiological age peculiarities of visual functions, methods of research and the body of the visual analyzer functions in people of different ages. | Curation of the patient | Interview |
| 2 | Clinical refraction, accommodation, optic vision correction. Binocular vision, pathology of oculomotor apparatus | Curation of the patient | Interview |
| 3 | Diseases of the protective apparatus of the eye (eyelids, conjunctiva, lacrimal organs, the orbit of the sclera) in individuals of different ages | Curation of the patient | Interview |
| 4 | Diseases of the optical apparatus of the eye (cornea, lens, vitreous) in individuals of various ages. | Curation of the patient | Interview |
| 5 | Diseases of the retina, optic nerve pathways, cortical areas of the visual analyzer in people of different ages. | Curation of the patient | Interview |
| 6 | Diseases of the vascular tract. | Curation of the patient | Interview |
| 7 | Neoplasm's organ of vision in children and adults. | Curation of the patient | Interview |
| 8 | Glaucoma | Curation of the patient | Interview |
| 9 | Damage to the organ of vision, occupational injuries and diseases, ocular prosthetics. | Curation of the patient | Interview |
| 10 | Ophthalmic symptoms of common diseases of the body's syndrome. | Curation of the patient | Interview |

8. Forms of control

8.1. Current forms of control

- oral an interview, a report
- written Verification tests, essays, lecture notes, problem solving.

8.2. Forms of interim attestation (pass/fail test)

| Stages of pass/fail test | | | |
|--------------------------|----------------|--|--|
| 1. Stage | final testing_ | | |

| 2. Stage | control of practical skills | | |
|----------|-----------------------------|--|--|
| | | | |
| 3. Stage | interview | | |

Questions for a pass/fail test are listed at the section «Assessment tools».

9. Maintenance of the course

9.1. Compulsory course literature

- 1. Neuro-Ophthalmology Illustrated [Электронный ресурс] / V. Biousse, N. Newman. [Б. м.] : Thieme, 2015. Режим доступа: https://medone-education.thieme.com/ebooks/2135666?fromSearch=true#/ebook_2135666_SL816 7445
- 2. Ophthalmology [Электронный ресурс] : a Pocket Textbook; Atlas / G. Lang. 3nd ed. [Б. м.] : Thieme, 2015. Режим доступа: https://medone-education.thieme.com/ebooks/2093772?fromSearch=true#/ebook_2093772_SL805 10111
- 3. Color Atlas of Ophthalmology. The Quick-Reference Manual for Diagnosis and Treatment [Электронный ресурс] / A. Agarwal, S. Jacob. 2nd ed. [Б. м.]: Thieme, 2009. Режим доступа: https://medone-education.thieme.com/ebooks/2120125?fromSearch=true#/ebook_212012 5 SL81122751
- 4. Agarwal A. Color Atlas of Ophthalmology. The Quick-Reference Manual for Diagnosis and Treatment [Электронный ресурс]/ A. Agarwal, S. Jacob. -2nd ed.: Thieme, 2009- URL: https://medone-education.thieme.com/ebooks/2120125?fromSearch=true#/ebook_2120125 SL81122751
- 5. Biousse V. Neuro-Ophthalmology Illustrated [Электронный ресурс]/ V. Biousse, N. Newman: Thieme, 2019. URL: https://medone-education.thieme.com/ebooks/cs_10185902#/ebook_cs_10185902_cs25 6. Lang G. Ophthalmology [Электронный ресурс]: A Pocket Textbook; Atlas/G. Lang. -3nd ed.: Thieme, 2015- URL: https://medone-education.thieme.com/ebooks/2093772?fromSearch=true#/ebook_2093772_SL805 10111

9.2. Supplementary course literature

1. The Retina in Systemic Disease [Электронный ресурс]: a Color Manual of Ophthalmoscopy / H. Tabandeh, M. Goldberg. - [Б. м.]: Thieme, 2009. - Режим доступа: https://medone-education.thieme.com/ebooks/2147814?fromSearch=true#/ebook_2147814_SL819 57290

- 2. Pocket Atlas of Ophthalmology [Электронный ресурс] / Т. Schlote [и др.]. [Б. м.] : Thieme, 2006. Режим доступа: https://medone-education.thieme.com/ebooks/2152942?fromSearch=true#/ebook_2152942_SL820 96122
- 3. Ophto Notes. The Essential Guide [Электронный ресурс] / R. Goodman. [Б. м.] : Thieme, 2003. Режим доступа: https://medone-education.thieme.com/ebooks/2151471?fromSearch=true#/ebook_2151471_SL82031706
- 4. Goodman R. Ophto Notes. The Essential Guide [Электронный ресурс]/ R. Goodman: Thieme, 2003- URL: https://medone-education.thieme.com/ebooks/2151471?fromSearch=true#/ebook_215147 1 SL82031706
- 5. Khurana A.K. Comprehensive Ophthalmology [Текст]/ A. K. Khurana. -4th. ed., 2010. -605 p.: il.
- 6. Laskaris G. Pocket Atlas of Oral Diseases [Электронный ресурс]/ George Laskaris.- Thieme, 2019- URL: https://medone-education.thieme.com/p/author/profile/8000000541
- 7. Tabandeh H. The Retina in Systemic Disease [Электронный ресурс]: A Color Manual of Ophthalmoscopy/ H. Tabandeh, M. Goldberg: Thieme, 2009- URL: https://medone-

education.thieme.com/ebooks/2147814?fromSearch=true#/ebook_2147814_SL819 57290

9.3. List of the information technologies used in the educational process of the course (module) - software: certified, license programs of general and educational assignment, information & reference systems – Garant, Consultant and etc.

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения | Адрес (местоположение) помещений для |
|--|--|
| всех видов учебной деятельности, | проведения всех видов учебной деятельности, |
| предусмотренной учебным планом, в том | предусмотренной учебным планом (в случае |
| числе помещения для самостоятельной | реализации ФГБОУ ВО СГМУ (г. Архангельск) |
| работы, с указанием перечня основного | Минздрава России программы в сетевой форме |
| оборудования, учебно-наглядных пособий | дополнительно указывается наименование |
| и используемого программного обеспечения | организации, с которой заключен договор) |
| Учебная аудитория для проведения занятий | 163000, г. Архангельск, просп. Троицкий, д. 51 |
| лекционного типа № 2102 имени | |
| Н.П.Бычихина, административный учебный | |
| корпус, 1 этаж | |
| а) перечень основного оборудования: | |

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 300 мест. б) наборы демонстрационного оборудования проектор, моноблок, экран, колонки в) перечень учебно-наглядных пособий: стенлы

г) используемое программное обеспечение:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 24, 4-й этаж (4-этажный корпус)

Договор № 338 от 11.04.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГАУЗ Архангельской области «Архангельская клиническая офтальмологическая больница». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

- б) наборы демонстрационного оборудования ноутбук, проектор
- в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, схемы по темам занятий, таблицы для проверки зрения, осветители таблиц аппарат Рота, таблицы Головина -Сивцева с оптотипами Поляка, таблицы Орловой периметры Ферстера, кампиметр,пороговые таблицы для исследования цветового зрения по Юстовой, полихроматические таблицы Е.Б. (4-x)Рабкина, анамалоскоп, цветотест точечный), адаптометр, настольные лампы, экзофтальмометр Гертеля, проекционный периметр

г) используемое программное обеспечение:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

163002, Архангельская область, г. Архангельск, пр. Обводный канал, д. 9

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 26, 4-й этаж (4-этажный корпус)

Договор № 338 от 11.04.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГАУЗ Архангельской области «Архангельская клиническая офтальмологическая больница». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, офтальмоскопы зеркальные, электроофтальмоскопы, бинокулярный офтальмоскоп, щелевая лампа, скиаскопические линейки-5 наборов, набор оптических стекол c универсальными оправами, набор асферических лин

г) используемое программное обеспечение:

Kaspersky endpoint Security. № лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 28, 4-й этаж (4-этажный корпус)

Договор № 338 от 11.04.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГАУЗ Архангельской области «Архангельская клиническая офтальмологическая больница». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

- б) наборы демонстрационного оборудования ноутбук, проектор
- в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, схемамы по темам занятий, таблицы для проверки зрения

163002, Архангельская область, г. Архангельск, пр. Обводный канал, д. 9

163002, Архангельская область, г. Архангельск, пр. Обводный канал, д. 9

| г) используемое программное обеспечение: | |
|--|--|
| Kaspersky endpoint Security. Номер лицензии | |
| 26FE-191125-134819-1-8403. | |
| MS Office 2007. MS Win Starter 7. MS Windows | |
| Prof 7 Upgr. MS Windows Server CAL 2008 | |
| Device CAL. Номер лицензии 46850049, | |
| бессрочно | |
| Radmin Viewer 3. Radmin Server 3. Homep | |
| документа 11001793 | |
| Traffic inspector. Лицензионное соглашение | |
| №1051-08 от 10.04.2008, бессрочно | |

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline **Emergency Medicine**

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) $\mathbf{V} / \mathbf{9}, \mathbf{10}$

Form of the interim assessment **Examination**

Department of Healthcare Mobilization Training and Emergency Medicine

Discipline workload 144 (academic hours)/4(credits)

Approved at the department meeting

Minutes No.

June 24th 2020

Head of the department

Y.E. Barachevsky

Author and compiler:

Kubasov Roman Viktorovich, Associate Professor of the Department of Healthcare Mobilization Training and Emergency Medicine, Candidate of Biological Sciences

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to form competence of a specialist in the sphere of safety culture of a medical worker, readiness and ability to take practical actions to ensure safe working conditions for personnel of medical organizations in various types of emergencies. |
|-------------------------|---|
| Tasks of the discipline | development of motivation for learning the discipline, the knowledge of which is necessary in the professional activity of a specialist in various conditions; professional and individual character's development: responsibility, competence, stress-tolerance, organization and management abilities; acquisition of knowledge about problems, threats and risks associated with human life in everyday conditions and in emergency situations; development of the ability to ensure the staff safety of organizations in emergency situations; development of abilities to elaborate competent and reasonable management decisions in emergency situations; |

2. Position of the course (module) within the structure of the educational program

The program is drawn up following the requirements of the Federal State Education Standard (FSES) in the training field: 31.05.01 General Medicine.

1. Block 1. Basic part.

A discipline "Life Safety" is basic (compulsory) section of professional educational cycles.

Previous courses: jurisprudence, chemistry, biology, anatomy, normal and pathological physiology, biochemistry, pharmacology, hygiene, public healthcare.

Following courses: epidemiology, medical rehabilitation, clinical pharmacology, medical psychology, forensic medicine, therapy, infection diseases, clinical-laboratory diagnostic.

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the | Competences | | | | | |
|--------------------------|---|--|--|--|--|--|
| formed competences | a student has knowledge of | a student is able to | a student masters | | | |
| | General professional competences | | | | | |
| GPC – No. 7 | basic principles of management and organization in healthcare | support of trade relations with colleagues | Skills of analyses. logic reasoning, moral and ethical principles of medical deontology | | | |
| Professional competences | | | | | | |

| PC -No. 3 | rules of anti-epidemic measures in technogenic and natural disasters | take part in treatment- prophylactic and sanitary anti-epidemic steps | measures of prophylactic, hygienic and anti-epidemic steps |
|------------|--|--|---|
| PC -No. 13 | features of medical aid organization in disasters | make a first aid in emergency conditions for suffered people in disasters | basic medical diagnostic and treatment measures in emergency conditions |
| PC -No. 19 | features of medicine organization, working levels, modern diagnostic capacities, emergency methods | to plan, analyze and estimate of medical aid quality, environment effects to human health | complex parameters of healthcare, medical statistics |

4. Volume of the course(module) and types of the academic classes: Total workload of the course is 4 credits.

| | Type of the academic work | Total hours | Term |
|--------------|--------------------------------------|-------------|------|
| Discipline | Lectures (L) | 14 | 9,10 |
| workload | Seminars (Sem.) | | |
| (in academic | Practical classes (PC) | 40 | 9,10 |
| hours) | Clinical practicals (CP) | | |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | 33,7 | 10 |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 10 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 54 | 9,10 |
| | Examination control (EC) | 0,3 | 10 |
| | Total course workload | 144 | 9,10 |
| | | | |

5. Contents of the course:

5.1. Contents of the sections of the course

| No. | Name of the course section | Contents of the section |
|-----|-----------------------------------|---|
| 1. | Medicine of disaster system. | International Medicine of disaster system: structure and |
| 1. | Wedienie of disaster system. | work organization. |
| 2. | Transport disasters. | Medical-tactical characteristic of transport disasters: road, |
| ۷. | Transport disasters. | water, railway, air, tube. |
| 3. | Terrorism. | Medical-tactical characteristic of terrorism. |
| 4. | Chemical disasters. | Medical-tactical characteristic of chemical disasters. |
| 5. | Radiation disasters. | Medical-tactical characteristic of radiation disasters. |
| 6. | Biological-social disasters. | Medical-tactical characteristic of biological-social disasters. |
| 7. | Natural disasters. | Medical-tactical characteristic of natural disasters. |
| 8. | Fire-explosion disasters. | Medical-tactical characteristic of fire-explosion disasters. |
| 9. | Treatment-evacuation support in | Basics of treatment-evacuation support in disasters. |
| 9. | disasters. | Basies of treatment-evacuation support in disasters. |
| 10. | Hygienic sanitary and anti- | Organization of hygienic sanitary and anti-epidemic |
| 10. | epidemic support in disasters. | support in disasters. |
| 11. | Medical equipment in disasters. | Organization of medical equipment in disasters. |
| 12. | Citizen medical supporting during | Organization of citizen medical supporting during armed |
| 12. | armed conflict. | conflict. |

5.2. Sections and types of studies

| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|------|--|----|---|----|----|-----|-----|----|----------------|
| 1. | Medicine of disaster system. | 2 | | 5 | | | | 3 | 10 |
| 2. | Transport disasters. | 2 | | 5 | | | | 3 | 10 |
| 3. | Terrorism. | 2 | | 5 | | | | 3 | 10 |
| 4. | Chemical disasters. | 2 | | 5 | | | | 3 | 10 |
| 5. | Radiation disasters. | 2 | | 5 | | | | 3 | 10 |
| 6. | Biological-social disasters. | 2 | | 5 | | | | 3 | 10 |
| 7. | Natural disasters. | 2 | | 5 | | | | 3 | 10 |
| 8. | Fire-explosion disasters. | 2 | | 2 | | | | 3 | 7 |
| 9. | Treatment-evacuation support in disasters. | 2 | | 3 | | | | 3 | 8 |
| 10. | Hygienic sanitary and anti- epidemic support in disasters. | 2 | | 5 | | | | 3 | 10 |
| 11. | Medical equipment in disasters. | 1 | | 2 | | | | 3 | 6 |
| 12. | Citizen medical supporting during armed conflict. | 1 | | 3 | | | | 3 | 7 |
| Tota | l hours | 22 | | 50 | | | | 36 | 108 |

6. Interactive forms of studies

| No. | Name of the course section | Interactive forms of studies | Duration (hours) |
|-------|---|--|------------------|
| 1. | Medicine of disaster system. | Essay and report preparing on topic «Domestic civil security system, including medicine» | 1 |
| 2. | Transport disasters. | Case «Save organization (including medical) in road disaster». | 2 |
| 3. | Terrorism. | Situation task «Hospital medical staff guidance in terroristic act risk». | 1 |
| 4. | Chemical disasters. | Simulation playing «Medical staff activity if chemical accident occur in hospital». | 2 |
| 5. | Radiation disasters. | Essay and report preparing on topic «Domestic radiation-dangerous objects». | 1 |
| 6. | Biological-social disasters. | Discussion «What terrible – war or epidemic? » | 1 |
| 7. | Natural disasters. | Essay and report preparing on topic «Domestic natural disasters». | 1 |
| 8. | Fire-explosion disasters. | Management game «Medical evacuation organization in territory when emergency case occurs». | 2 |
| 9. | Treatment- evacuation support in disasters. | Essay and report preparing on topic «Domestic sanitary-hygienic and anti-epidemic organization» | 1 |
| 10. | Hygienic sanitary and anti-epidemic support in disasters. | Essay and report preparing on topic «Domestic medical logistics organization in disasters» | 1 |
| 11. | Medical equipment in disasters. | Essay and report preparing on topic «A current methods of armed fight and its damage effects, medical aspects», «Domestic citizen medical supporting if armed conflict occurs» | 1 |
| 12. | Citizen medical supporting during armed conflict. | Essay and report preparing on topic «Domestic civil security system, including medicine» | 1 |
| Total | l (hours) | | 14 |

$7.\ List\ of\ teaching\ materials\ for\ the\ course\ unsupervised\ work\ of\ students\ (including\ the\ use\ of\ e-learning\ opportunities,\ distance\ learning\ technologies\ (Moodle))$

| N₂ | Name of the course section | Types of the unsupervised work | Forms of control | |
|----|--|--|--|--------------------------------|
| 1. | Medicine of disaster system. | - studying of educational materials | - Summary checking; - Verbal communication | |
| | | - Find scientific information and review its on topic «Domestic citizen medical supporting»; essay and report preparing. | - Essay and report checking | |
| 2. | Transport disasters.* | - studying of educational materials | Verbal communication | |
| ۷. | Transport disasters." | - Case preparing «Save organization (including medical) in road disaster». | - Case checking | |
| 3. | Tamariana * | - studying of educational materials | - Verbal communication | |
| 3. | Terrorism.* | - Situation task preparing «Hospital medical staff guidance in terroristic act risk». | - Situation task checking | |
| | | - studying of educational materials | - Verbal communication | |
| 4. | Chemical disasters.* | - Simulation playing preparing «Medical staff activity if chemical accident occurs in hospital». | - Simulation play task checking | |
| | | - studying of educational materials | - Summary checking | |
| 5. | 5. Radiation disasters.* | Radiation disasters.* | Radiation disasters.* - Find scientific information and review its on topic «Domestic citizen medical supporting if radiation disaster occurs»; essay and report preparing. | - Essay and report checking |
| | | - studying of educational materials | - Verbal communication | |
| 6. | Biological-social disasters. | - Discussion preparing «What terrible – war or epidemic? ». | - Discussion participation checking | |
| | | - studying of educational materials | Verbal communication | |
| 7. | Natural disasters.* | - Find scientific information and review its on topic «Domestic natural disasters»; essay and report preparing. | - Simulation play task checking | |
| | | - studying of educational materials | - Verbal communication | |
| 8. | Fire-explosion disasters.* | - Simulation playing preparing «Medical staff activity if fire accident occurs in hospital». | - Essay and report checking | |
| 9. | Treatment-evacuation support in disasters. | - studying of educational materials | - Verbal communication; - Summary checking | |

| | | - Management game preparing «Medical evacuation organization in territory when emergency case occurs». | - Management game participation checking |
|-----|---|---|--|
| | | - studying of educational materials | - Verbal communication |
| 10. | Hygienic sanitary and anti- epidemic support in disasters. | - Find scientific information and review its on topic «Domestic sanitary-hygienic and anti-epidemic organization»; essay and report preparing. | - Essay and report checking |
| | Medical equipment in disasters. | - studying of educational materials | - Summary checking |
| 11. | | - Find scientific information and review its on topic «Domestic medical logistics organization in disasters»; essay and report preparing. | - Essay and report checking |
| | | - studying of educational materials | - Verbal communication |
| 12. | Citizen medical supporting during armed conflict. | - Find scientific information and review its on topic «A current methods of armed fight and its damage effects, medical aspects», «Domestic citizen medical supporting if armed conflict occurs»; essay and report preparing. | - Essay and report checking |

Notes: * Materials are realized by distance learning technologies (Moodle)

8. Forms of control

- 8.1. Current forms of control
 - Oral (Verbal communication, report)
 - Written (tests, essay, summary, tasks checking).

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the section 'Evaluation tools'.

8.2. Forms of the interim assessment(pass/fail test, examination, term paper)

Stages of the interim assessment

- 1. Stage Verbal communication on pass paper
- 2. Stage situational task

Questions for a pass/fail test and an examination, a theme list of test collections and situational problems are shown at the section 'Set of the evaluation tools for the current control and interim assessment of students'.

9.Library and information materials of the course

- 9.1. Compulsory literature
- 2. Безопасность жизнедеятельности [Электронный ресурс]: учебник / В. С. Сергеев. Москва: Издательство ВЛАДОС, 2018. 480 с. URL: http://www.studentlibrary.ru/book/ISBN9785906992888.html

- 3. Kubasov R. V. Organization of public protection in emergency situations [Электронныйресурс]: study guide/ R. V. Kubasov, A. G. Kalinin, Y. E. Barachevsky. Arkhangelsk: NSMU Publishing, 2020. -120 p.- URL: <a href="http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/K89-933454
- 4. Levchuk I.P. Life Safety in Medicine [Электронныйресурс]: учебноепособие/ І. Р. Levchuk. -Москва: ГЭОТАР-Медиа, 2018. -112 p.- URL: http://www.studentlibrary.ru/book/ISBN9785970446072.html
- 5. Garkavi A.V. Disaster medicine [Электронныйресурс]: textbook/ A. V. Garkavi, G. M. Kavalersky. -Moscow: GEOTAR-Media, 2019. -304 с.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970452585.html
- 9.2. Supplementary literature
- 1. Медицина катастроф [Электронный ресурс] / И. В. Рогозина. Москва: ГЭОТАР-Медиа, 2015. 152 с. : ил. URL: http://www.studentlibrary.ru/book/ISBN9785970432334.html
- 2. Медицина катастроф. Курс лекций [Электронный ресурс]: Учеб. пособие для высш. проф. образования / И. П. Левчук, Н. В. Третьяков. Москва: ГЭОТАР-Медиа, 2015. 240 с.: ил. URL:
- http://www.studentlibrary.ru/book/ISBN9785970433478.html. Библиогр.: с. 239. ISBN 978-5-9704-1862-8 (в пер.)
- 3. Медицина катастроф [Текст]: учеб. пос. для студентов мед. вузов / П. И. Сидоров, И. Г. Мосягин, А. С. Сарычев. Москва: Академия, 2010. 318[1] c + 1 эл. опт. диск (CD-ROM). (Высшее профессиональное образование) (Медицина). Библиогр.: с. 313-314. ISBN 978-5-7695-6883-1 (в пер.)
- 9.3. List of the Internet resources required for mastering of the course (module)*
 - 1. http://www.who.int/
 - 2. http://www.scopus.com/
 - 3. http://www.sciencedirect.com/
 - 4. https://www.elsevier.com/
 - 5. http://www.healthadvance.com/
 - 6. http://www.ncbi.nlm.nih.gov/
 - 7. https://www.ebsco.com/
 - 8. http://www.cochranelibrary.com/
 - 9. http://www.eurasiahealth.org/
 - 10. http://www.medscape.com/
 - 11. http://www.nap.edu/
 - 12. http://www.elibraru.ru/
 - 13. http://www.medline.ru/
 - 14. http://www.medlit.ru/
 - 15. http://www.consilium-medicum.com/
 - 16. http://www.mediasphera.ru/
 - 17. http://medportal.ru/
- 9.4. List of the information technologies used in the educational process of the course (module)

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Hamananan makamanny mag mananang naay | A ==== (x=============================== |
|--|--|
| Наименование помещений для проведения всех видов учебной деятельности, предусмотренной | Адрес (местоположение) помещений для проведения всех видов учебной деятельности, |
| учебным планом, в том числе помещения для | предусмотренной учебным планом (в случае |
| самостоятельной работы, с указанием перечня | реализации ФГБОУ ВО СГМУ (г. |
| основного оборудования, учебно-наглядных | реализации ФТ во У во СТ МТУ (Т. Архангельск) Минздрава России программы в |
| пособий и используемого программного | сетевой форме дополнительно указывается |
| обеспечения | наименование организации, с которой |
| oocene tennii | заключен договор) |
| Учебная аудитория для проведения занятий | 163000, г. Архангельск, просп. Троицкий, д. 51 |
| лекционного типа №2102 имени Н.П.Бычихина | 103000, 1. Архані слыск, просп. Троицкий, д. 31 |
| административный учебный корпус, 1 этаж | |
| а) перечень основного оборудования: | |
| Комплект учебной мебели (столы, стулья, | |
| экран, доска) рабочее место преподавателя, | |
| рабочие места для обучающихся на 300 мест. | |
| б) наборы демонстрационного оборудования | |
| проектор, моноблок, экран, колонки | ! |
| в) перечень учебно-наглядных пособий: | |
| стенты, схемы | |
| г) используемое программное обеспечение: | |
| KasperskyendpointSecurity. Номерлицензии 26FE- | |
| 191125-134819-1-8403. | |
| MS Office 2007. MS Win Starter 7. MS Windows Prof | |
| 7 Upgr. MS Windows Server CAL 2008 Device CAL. | |
| Номер лицензии 46850049, бессрочно | |
| Radmin Viewer 3. Radmin Server 3. | |
| Номердокумента 11001793 | |
| Trafficinspector. Лицензионное соглашение | |
| №1051-08 от 10.04.2008, бессрочно | |
| Учебная аудитория для занятий семинарского | 163000, г. Архангельск, просп. Троицкий, д. 51 |
| типа, групповых и индивидуальных консультаций, | |
| текущего контроля и промежуточной аттестации | |
| № 2409 административный учебный корпус, 4 | |
| этаж | |
| а) перечень основного оборудования: | |
| Комплект учебной мебели (столы, стулья, | |
| экран, доска) рабочее место преподавателя, | |
| рабочие места для обучающихся на 28 мест. | |
| б) наборы демонстрационного оборудования | |
| ноутбук, проектор | |
| в) перечень учебно-наглядных пособий: | |
| Наглядные пособия, раздаточный материал к | |
| практическим занятиям по всем темам | |
| дисциплины, схемы к занятиям по темам | |
| г) используемое программное обеспечение: | |
| KasperskyendpointSecurity. Номерлицензии 26FE- | |
| 191125-134819-1-8403. | |
| MS Office 2007. MS Win Starter 7. MS Windows Prof | |
| 7 Upgr. MS Windows Server CAL 2008 Device CAL. | |
| Номер лицензии 46850049, бессрочно | |
| Radmin Viewer 3. Radmin Server 3. | |
| Номердокумента 11001793 | |

| Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно | |
|---|--|
| №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 1398 главный учебный корпус, 3 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 30 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, схемы, таблицы к занятиям по темам г) используемое программное обеспечение: КазрегѕкуепфоіпtSecurity. Номер лицензии 26FE-191125-134819-1-8403. МS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. | 163000, г. Архангельск, просп. Троицкий, д. 51 |
| 7 Opgr. MS windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно | |
| Radmin Viewer 3. Radmin Server 3. | |
| Номердокумента 11001793 | |
| Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно | |

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline Hospital Internal Medicine

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) **V-VI / 10-12**

Form of the interim assessment **Examination**

Department of Hospital Internal Medicine and Endocrinology

Discipline workload 432 (academic hours)/12 (credits)

Approved at the department meeting

Minutes No.

June 16th 2020

Head of the department

Follygur N.A. Polyarush

Author and compiler:

Krivonkin Konstantin Yurievich, Associate Professor of the Department of Hospital Internal Medicine and Endocrinology, Candidate of Medical Sciences

Arkhangelsk, 2020

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to teach specialists to provide medical care for patients with diseases of internal organs. |
|-------------------------|---|
| Tasks of the discipline | -formation of knowledge on the diagnosis, treatment and prevention of diseases of internal organs for the provision of medical care; -formation of the skills necessary for the diagnosis, treatment and prevention of diseases of internal organs. |

2. Position of the coursewithin the structure of the educational program

The program has been developed following the requirements of FederalState Education Standard for higher education (FSES) in the training field of 31.05.01 'General medicine'. The training cycle is the basic professional one.

Block 1. Basic part.

The discipline takes the final undergraduate place, after all training cycles, together with Hospital Surgery and OutpatientInternal Medicine. The program relates to most academic and all clinical disciplines including Introduction to Internal Medicine, Endocrinology, and Faculty Internal Medicine.

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

General overview

The student should be able to:

- communicate in a respectful, effective, efficient, and educational manner with patients and their families.
- elicit a record of an appropriately complete, cogent and organized medical history.
- conduct and record an appropriately complete and accurate physical examination.
- use knowledge of the pathophysiology of signs and symptoms to establish clinical correlation with disease processes.
- formulate a reasoned differential diagnosis for each problem.
- formulate an appropriate plan for confirming the diagnosis.
- formulate an appropriate initial and ongoing treatment program taking into account the urgency of the patient's problems.
- use information from texts, syllabi, and journals to study general topics related to patient's problems.

• record patient progress in the medical record; and make a verbal report to the health care team in a clear and succinct manner.

Technical and interpretation skills

Students are expected to acquire certain technical skills and interpretation that are commonly employed in medical care. Wherever possible, students are encouraged to participate in procedures under adequate supervision. The student should be able to:

- perform and interpret an ECG.
- perform venipuncture for blood specimens or intravenous therapy.
- interpret a complete blood count.
- interpret common chemistry measurements (e.g. enzymes, electrolytes).
- interpret arterial blood gas measurements.
- interpret results of a urinalysis.
- interpret chest x-ray findings.
- do basic interpretation of pulmonary function tests.

General professional competences (GPC)

GPC-6 (readiness to keep medical documentation)

Keeping medical documentation

Specific learning objectives:

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 1. The structure of the medical record.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Eliciting a record of an appropriately complete, cogent and organized medical history.
 - 2. Recording patient progress in the medical record.
 - 3. Writing prescriptions and inpatient orders safely and accurately.

C. Attitudes and professional behaviors: Students should be able to:

1. Recognize the essential contribution of the medical record to patient care.

Professional competencies (PC)

<u>PC-3</u> (ability and readiness to undertake anti-epidemic activities, organize protection of populations in areas of particularly dangerous infections, in situations of deterioration of the radiation situation, natural disasters and other emergencies) Specific learning objectives:

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 1. The physiologic mechanisms that explain key findings in the history and physical exam.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Performing a physical examination in a logical, organized, respectful, and thorough manner, giving attention to the patient's general appearance, vital signs, and pertinent body regions.

- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Demonstrate consideration for the patient's feelings, limitations, and cultural and social background at all times, more so whenever taking a history and performing a physical exam.

<u>PC-5</u> (readiness to collect and analyze patient's complaints and medical history, examination results, laboratory, instrumental, forensic and other data to understand the patient's condition or recognize the presence or absence of disease)

(1) History-taking and physical examination

Rationale: The ability to obtain an accurate medical history and carefully perform a physical examination is fundamental to providing care to adult patients. In particular, an internal medicine provider must be thorough and efficient in obtaining a history and performing a physical examination in a wide variety of adult patients. This includes healthy adults, adults with acute and chronic medical problems, adults with complex life-threatening diseases, and adults from diverse socioeconomic and cultural backgrounds.

Specific learning objectives:

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 2. The significant attributes of a symptom, including: location and radiation, intensity, quality, temporal sequence (onset, duration, frequency), alleviating, precipitating and aggravating factors, setting, associated symptoms, functional impairment, and patient's interpretation of symptom.
 - 3. The four methods of physical examination (inspection, auscultation, palpation, and percussion), including where and when to use them, their purposes, and the findings each can elicit.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 2. Eliciting the patient's chief complaint as well as a complete list of the patient's concerns.
 - 3. Obtaining a patient's history in a logical, organized, and thorough manner, covering the history of present illness; past medical history; preventive health measures; social, family, and occupational history; and review of systems.
 - 4. Demonstrating proper hygienic practices whenever examining a patient.
- C. Attitudes and professional behaviors: Students should be able to:
 - 2. Recognize the essential contribution of a pertinent history and physical examination to patient care.
 - 3. Establish a habit of updating historical information and reevaluating pertinent important parts of the physical examination during follow-up visits.

(2) <u>Interpretation of clinical information</u>

Rationale: In the routine course of clinical practice, most physicians are required to order and interpret a wide variety of diagnostic tests and procedures. Determining how these test results will influence clinical decision making and communicating this information to patients in a timely and effective manner are core clinical skills that the last-year medical students should possess.

- A. Knowledge: Students should be able to:
 - 1. Interpret specific diagnostic tests and procedures that are ordered to evaluate patients who present with common symptoms and diagnoses encountered in the practice of internal medicine.
 - 2. Take into account the important differential diagnostic considerations, including potential diagnostic emergencies.
 - 3. Define and describe for the tests and procedures listed:
 - a. Indications for testing.
 - b. Critical values that require immediate attention.
 - 4. Independently interpret the results of the following laboratory tests:
 - a. CBC with diff and blood smear, UA, electrolytes, BUN/Cr, glucose, liver enzymes, viral hepatitis serologies, cardiac biomarkers (e.g. CK-MB, troponin), PT/INR, PTT, thyroid function tests, arterial blood gases, pulmonary function tests.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Interpreting a blood smear, Gram stain, and chest X-ray
 - 2. Approaching ECG interpretation in a systematic and logical fashion analyzing the following: rate, rhythm, P wave morphology, PR interval, QRS width, axis, voltage, QT interval, ST segment morphology, and T wave morphology.
 - 3. Recording the results of laboratory tests in an organized manner, using flow sheets when appropriate.
- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Appreciate the importance of follow-up on all diagnostic tests and procedures and timely communication of information to patients and appropriate team members.
 - 2. Personally review medical imaging studies, ECGs, Gram stains, blood smears, etc. to assess the accuracy and significance of the results.

(3) Case presentation skills

Rationale: Communicating patient care information to colleagues and other health care professionals is an essential skill regardless of specialty. Students should develop facility with different types of case presentations: written and oral, new patient and follow-up, inpatient and outpatient.

- A. Knowledge: Students should be able to define, describe, and discuss components of comprehensive and abbreviated case presentations (oral and written) and settings appropriate for each.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Prepare legible, comprehensive, and focused new or follow-up patient reports that include the following features as clinically appropriate:
 - a. Concise history of the present illness organized chronologically with minimal repetition, omission, or extraneous information, and including pertinent positives and negatives.
 - b. A comprehensive physical examination with detail pertinent to the patient's problem.
 - c. A succinct, prioritized, and, where appropriate, complete list of all

- problems identified by the history and physical examination.
- d. A differential diagnosis for each problem (appropriate for the student's level of training).
- e. A diagnostic and treatment plan for each problem (appropriate for the student's level of training).
- 2. Orally present a new or follow-up inpatient's or outpatient's case in a logical manner, chronologically developing the present illness, summarizing the pertinent positive and negative findings as well as the differential diagnosis and plans for further testing and treatment.
- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Demonstrate ongoing commitment to improving case presentation skills by regularly seeking feedback on presentations.
 - 2. Accurately and objectively record and present all data.

<u>PC-6</u> (ability to recognize patient's major pathological conditions, symptoms, syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th revision)

Diagnostic decision-making

Rationale: Physicians are responsible for directing and conducting the diagnostic evaluation of a broad range of patients, including patients seeking advice on prevention of and screening for disease and patients with acute and chronic illnesses. In a time of rapidly proliferating tests, medical students must learn how to design safe, expeditious, and cost-effective diagnostic evaluations. This requires diagnostic decision-making skills that incorporate probability-based thinking.

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 1. Key history and physical examination findings pertinent to the differential diagnosis.
 - 2. Information resources for determining diagnostic options for patients with common and uncommon medical problems.
 - 3. How critical pathways or practice guidelines can be used to guide diagnostic test ordering.
- B. Skills: Students should demonstrate specific skills, including:
 - 1. Identifying problems with which a patient presents, appropriately synthesizing these into logical clinical syndromes.
 - 2. Identifying which problems are of highest priority.
 - 3. Formulating a differential diagnosis based on the findings from the history and physical examination.
 - 4. Using the differential diagnosis to help guide diagnostic test ordering and sequencing.
- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Seek feedback regularly regarding diagnostic decision-making and respond appropriately.
 - 2. Recognize the importance of and demonstrate a commitment to the utilization of other health care professionals in diagnostic decision making.

<u>PC-8</u> (ability to decide on management of patients with various nosological forms) <u>Therapeutic decision-making</u>

Rationale: Internists are responsible for directing and coordinating the therapeutic management of patients with a wide variety of problems, including critically ill patients with complex medical problems and the chronically ill. To manage patients effectively, physicians need basic therapeutic decision-making skills that incorporate both pathophysiologic reasoning and evidence-based knowledge. Specific learning objectives:

A. Knowledge: Students should be able to define, describe, and discuss:

- 1. Information resources for determining medical and surgical treatment options for patients with common and uncommon medical problems.
- 2. How to use critical pathways and clinical practice guidelines to help guide therapeutic decision making.
- 3. Factors that frequently alter the effects of medications, including drug interactions and compliance problems.
- 4. Factors to consider in selecting a medication from within a class of medications.
- 5. Factors to consider in monitoring a patient's response to treatment, including potential adverse effects.
- 6. Methods of monitoring therapy and how to communicate them in both written and oral form.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Formulating an initial therapeutic plan.
 - 2. Accessing and utilizing, when appropriate, information resources to help develop an appropriate and timely therapeutic plan.
 - 3. Writing prescriptions and inpatient orders safely and accurately.
 - 4. Counseling patients about how to take their medications and what to expect when doing so, including beneficial outcomes and potential adverse effects.
 - 5. Monitoring response to therapy.
- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Involve the patient in the decision-making process, explaining the risks and benefits of treatment.
 - 2. Respect patient's informed choices, including the right to refuse treatment.
 - 3. Recognize the importance of and demonstrate a commitment to the utilization of other healthcare professionals in therapeutic decision making.

<u>PC-9</u> (readiness to manage and treat patients with various nosological forms in outpatient and day-care organizations)

Therapeutic decision-making in the out-patient setting

Rationale: Internists are responsible for directing and coordinating the therapeutic management of out-patients with a wide variety of problems. To manage out-patients effectively, physicians need basic therapeutic decision-making skills that incorporate both pathophysiologic reasoning and evidence-based knowledge. Specific learning objectives:

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 1. Information resources for determining medical treatment options foroutpatients with common medical problems.
 - 2. How to use critical pathways and clinical practice guidelines to help guide therapeutic decision making.
 - 3. Factors that frequently alter the effects of medications, including drug interactions and compliance problems.
 - 4. Factors to consider in selecting a medication from within a class of medications.
 - 5. Factors to consider in monitoring a patient's response to treatment, including potential adverse effects.
 - 6. Methods of monitoring therapy and how to communicate them in both written and oral form.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Formulating an initial therapeutic plan.
 - 2. Accessing and utilizing, when appropriate, information resources to help develop an appropriate and timely therapeutic plan.
 - 3. Writing prescriptions safely and accurately.
 - 4. Counseling out-patients about how to take their medications and what to expect when doing so, including beneficial outcomes and potential adverse effects.
 - 5. Monitoring response to therapy.
- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Involve the out-patient in the decision-making process, explaining the risks and benefits of treatment.
 - 2. Respect out-patient's informed choices, including the right to refuse treatment.
 - 3. Recognize the importance of and demonstrate a commitment to the utilization of other healthcare professionals in therapeutic decision making.

<u>PC-10</u> (readiness to provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do *not* involve a threat to patient's life and do *not* require emergency medical care)

Therapeutic decision-makingfor sudden acute diseases

Rationale: Internists are responsible for directing and coordinating the therapeutic management of patients with a wide variety of problems, including the patients with acute diseases. To manage such patients effectively, physicians need basic therapeutic decision-making skills that incorporate both pathophysiologic reasoning and evidence-based knowledge.

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 1. Information resources for determining medical and surgical treatment options for patients with common and uncommon medical problems.
 - 2. How to use critical pathways and clinical practice guidelines to help guide therapeutic decision making.

- 3. Factors that frequently alter the effects of medications, including drug interactions and compliance problems.
- 4. Factors to consider in selecting a medication from within a class of medications.
- 5. Factors to consider in monitoring a patient's response to treatment, including potential adverse effects.
- 6. Methods of monitoring therapy and how to communicate them in both written and oral form.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Formulating an initial therapeutic plan.
 - 2. Accessing and utilizing, when appropriate, information resources to help develop an appropriate and timely therapeutic plan.
 - 3. Writing prescriptions and inpatient orders safely and accurately.
 - 4. Counseling patients about how to take their medications and what to expect when doing so, including beneficial outcomes and potential adverse effects.
 - 5. Monitoring response to therapy.
- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Involve the patient in the decision-making process, explaining the risks and benefits of treatment.
 - 2. Respect patient's informed choices, including the right to refuse treatment.
 - 3. Recognize the importance of and demonstrate a commitment to the utilization of other healthcare professionals in therapeutic decision making.

<u>PC-11</u> (readiness to participate in providing *emergency medical care* for conditions requiring immediate medical intervention)

Proficiency in the <u>assessment and initial management of acutely ill patients</u> who are less critically ill or injured but present as emergencies.

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 1. Initial care of the critically ill and injured patient.
 - 2. Assessment and management of all common medical emergencies, including:
 - a. Collapse including cardiac failure, hypovolemia, hemorrhage, anaphylaxis, metabolic crises, overwhelming sepsis, hypothermia, electrolyte disturbances.
 - b. Acute dyspnea, respiratory failure, pneumothorax.
 - c. Psychiatric presentations to the Emergency department: Management of poisoning and self-harm, alcohol related problems, substance misuse, delirium, disturbed or violent behaviour, interaction with acute psychiatric services.
 - d. Acute cardiac emergencies: acute coronary syndrome, arrtythmias, assessment of chest pains.
 - e. Acute neurological emergencies, including acute stroke, TIA, seizure disorders, meningitis, traumatic brain injury.
 - f. Acute rheumatological conditions.
 - g. Assessment of elderly patients with complex presentations and multiple

pathology. Appropriate discharge planning.

- 3. Knowledge of how to obtain more detailed information about common emergencies and how to obtain help in the case of more unusual presentations.
- 4. The special problems encountered at the scene of an incident and during transfer should be appreciated and the general principles of pre-hospital care understood.
- 5. Knowledge of a hospital process during a major incident.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 1. Recognise emergency.
 - 2. Determine rapidly the clinical context and sequence of events leading to the emergency.
 - 3. Conduct focussed clinical examination.
 - 4. Establishe a provisional diagnosis, plans and arrange appropriate initial investigations, determine severity of organ dysfunctions.
 - 5. Initiate appropriate emergency management, including summoning help, and urgent referral to other services.
 - 6. Monitor patient's condition appropriately and recognise and act on complications.
- C. Attitudes and professional behaviors: Students should be able to:
 - 1. Exhibit calm and methodical approach to assessing critically ill patient.
 - 2. Adopt leadership role where appropriate
 - 3. Involve senior and specialist (e.g. critical care outreach) services promptly

4. Volume of the course (module) and types of the academic classes:

Total workload of the course is 12 credits.

| | Type of the academic work | Total hours | Term |
|--------------|--------------------------------------|--------------------|-------|
| Discipline | | | |
| workload | Lectures (L) | 68 | 10-12 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 130 | 10-12 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | 33,7 | 12 |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 12 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 198 | 10-12 |
| | Examination control (EC) | 0,3 | 12 |
| | Total course workload | 432 | 10-12 |
| | | | |

5. Contents of the course:

5.1. Contents of the course modules

| No | Name of course module | Contents of course module |
|----------|-------------------------------------|---|
| 1 | 2 | 3 |
| No 1 1 1 | Name of course module 2 Cardiology | Acute circulatory failure (cardiogenic shock): pathophysiology, clinical features, investigations, management. Heart failure: etiology, pathophysiology, types, clinical assessment, complications, investigations; management of acute pulmonary edema; management of chronic heart failure, general measures, drug therapy, implantable cardiac defibrillators and resynchronisation therapy (CRT), coronary revascularization, heart transplantation, ventricular assist devices; prognosis. Cardiac arrest and sudden cardiac death: causes of sudden death, etiology of cardiac arrest, management of cardiac arrest, adult basic life support. Disorders of heart rate, rhythm and conduction: main mechanisms, sinus tachycardia, causes, diagnosis, management; atrial tachyarrhythmias, atrial ectopic beats (extrasystoles, premature beats), atrial tachycardia, atrial flutter, diagnosis, management; atrial fibrillation (AF), classification, causes, clinical assessment, diagnosis, management, options for treating persistent AF, prevention of thromboembolism; 'supraventricular' tachycardias, Wolff-Parkinson-White syndrome and atrioventricular nodal re-entrant tachycardia (AVNRT), diagnosis, management; ventricular tachyarrhythmias, ventricular ectopic beats (extrasystoles, premature beats), ventricular ectopic beats in |
| | | tachycardia, atrioventricular nodal re-entrant tachycardia (AVNRT), diagnosis, management; ventricular tachyarrhythmias, ventricular ectopic beats (extrasystoles, |
| | | ventricular tachycardia (VT), torsades de pointes, causes of long QT interval and torsades de pointes, diagnosis, management; sinoatrial disease (sick sinus syndrome), classification, diagnosis, management; atrioventricular and bundle branch block, AV block, Stokes-Adams attacks, diagnosis, management; anti-arrhythmic drug therapy, |
| | | the classification of anti-arrhythmic drugs; therapeutic procedures, external defibrillation and cardioversion, catheter ablation; pacemakers, classification; |

implantable cardiac defibrillators (ICDs), indications, usage.
Atherosclerosis: pathophysiology, risk

Atherosclerosis: pathophysiology, risk factors, prevention and its classification. Coronary heart disease: etiology, pathophysiology, pathology, main clinical manifestations (presentations); stable angina, pathophysiology, classification, clinical features, investigations, management, drug treatment, invasive treatment, prognosis; acute coronary syndrome, pathophysiology, classification, clinical features, diagnosis and risk stratification, investigations, management, analgesia, antithrombotic therapy, anti-anginal therapy, reperfusion therapy, universal definition of myocardial infarction; prognosis.

Aortic dissection: pathophysiology, classification, clinical features, investigations, management, prognosis. Rheumatic heart disease: acute rheumatic fever, pathogenesis, clinical features, investigations, jones criteria, management, prognosis; chronic rheumatic heart disease, pathology, pathophysiology, main clinical manifestations (presentations), investigations, prognosis.

Mitral valve disease: mitral stenosis, etiology, pathophysiology, classification, clinical features, investigations, management, valve replacement surgery, prognosis; mitral regurgitation, etiology, pathophysiology, classification, clinical features, investigations, management, valve replacement surgery, prognosis.

Aortic valve disease: aortic stenosis,

etiology, pathophysiology, classification, clinical features, investigations, management, valve replacement surgery, prognosis; aortic regurgitation, etiology, pathophysiology, classification, clinical features, investigations, management, valve replacement surgery, prognosis.

Tricuspid valve disease: tricuspid stenosis, tricuspid regurgitation, etiology, pathophysiology, classification, clinical features, investigations, management, valve replacement surgery, prognosis.

Pulmonary valve disease: pulmonary stenosis, pulmonary regurgitation, etiology, pathophysiology, classification, clinical

features, investigations, management, valve replacement surgery, prognosis. Infective endocarditis: pathophysiology, classification, clinical features, investigations, major criteria, management, prevention, valve replacement surgery, prognosis.

Hypertension: etiology, classification, definition, grades, secondary hypertension, causes of secondary hypertension, target organ damage, clinical examination, investigations, management, non-drug therapy, antihypertensive drugs. Secondary hypertension: definition, causes of secondary hypertension, renal disease, classification, investigations, management; pheochromocytoma, clinical examination, investigations, management; Cushing's syndrome, clinical examination, investigations, management; primary hyperaldosteronism (Conn's syndrome), clinical examination, investigations, management: coarctation of the aorta. clinical examination, investigations. Congenital heart disease in the adult: etiology, incidence, classification, intracardiac hemodynamics, clinical features; persistent ductus arteriosus, etiology, intracardiac hemodynamics, clinical features, investigations, management; coarctation of the aorta, etiology, intracardiac hemodynamics, clinical features, investigations, management; atrial septal defect, etiology, intracardiac hemodynamics, clinical features, investigations, management; ventricular septal defect, etiology, intracardiac hemodynamics, clinical features, investigations, management; pulmonary hypertension and Eisenmenger's syndrome.

Myocarditis: etiology, pathogenesis, clinical features, investigations, management.
Cardiomyopathy: definition, functional classification, dilated cardiomyopathy, hypertrophic cardiomyopathy, obliterative cardiomyopathy and restrictive cardiomyopathy, hemodynamics, clinical features, investigations, management.
Specific diseases of heart muscle: definition, etiological classification, clinical features, investigations, management.

Venous thromboembolism: etiology, clinical features, investigations, management, prognosis. Pulmonary hypertension: classification, clinical features, investigations, management, prognosis. Pericardial disease: acute pericarditis, etiology, types, clinical features, investigations, management; pericardial effusion, etiology, hemodynamics, clinical features, investigations, management, cardiac tamponade, pericardial aspiration; chronic constrictive pericarditis, etiology, hemodynamics, clinical features, investigations, management. 2 Respiratory failure: types, pathophysiology, Pulmonology causes, management of acute respiratory failure, oxygen therapy, respiratory support (mechanical ventilation); chronic and 'acute on chronic' type II respiratory failure: pathophysiology, causes, assessment, management, respiratory support (invasive mechanical ventilation, non-invasive mechanical ventilation [NIV]), home ventilation for chronic respiratory failure. Asthma: epidemiology, pathophysiology, clinical features, diagnosis, management, a stepwise approach to the management, prognosis; exacerbations, pathophysiology, clinical features, diagnosis, management of mild-moderate exacerbations, management of acute severe asthma, prognosis. Chronic obstructive pulmonary disease (COPD): epidemiology, etiology, pathophysiology, clinical features, investigations, management, long-term domiciliary oxygen therapy (LTOT), surgical intervention, prognosis, BODE index; acute exacerbations, management of acute exacerbations, respiratory support (noninvasive ventilation [NIV]) in exacerbations, discharge, prognosis. Bronchiectasis: etiology, pathogenesis, pathology, clinical features, investigations, management, prognosis. Pneumonia: classifications, communityacquired pneumonia (CAP), clinical features, investigations, assessment of disease severity, the CURB-65 scoring

management, prognosis, discharge, follow-

up, prevention; complications, prevention; hospital-acquired pneumonia (HAP), etiology, clinical features, investigations, management, prevention. Suppurative pneumonia and pulmonary abscess: etiology, pathogenesis, clinical features, investigations, management. Idiopathic pulmonary fibrosis: etiology, pathology, clinical features, investigations, management. Sarcoidosis: etiology, pathology, clinical features, investigations, stages, managment. Hypersensitivity pneumonitis (extrinsic allergic alveolitis): pathogenesis and pathology, clinical features, investigations, management. Pleural effusion and empyema: etiology, clinical features, investigations, management. 3 Rheumatology Osteoarthritis: pathogenesis, clinical features, investigations, management. Rheumatoid arthritis: classification, pathophysiology, clinical features, investigations, management. Management of musculoskeletal disorders: pharmacological options for direct symptom control, analgesia, disease-modifying antirheumatic drugs (DMARDs), biologic disease-modifying antirheumatic drugs, corticosteroids. Seronegative spondyloarthritis: pathogenesis, ankylosing spondylitis, Reiter's syndrome, psoriatic arthritis, clinical features, investigations, management. Systemic lupus erythematosus: pathophysiology, clinical features, investigations, management. Systemic sclerosis: pathophysiology, clinical features, investigations, management. Polymyositis and dermatomyositis: pathophysiology, clinical features, investigations, management. Systemic vasculitis: classification, pathophysiology, Takayasu's arteritis, polyarteritis nodosa (PAN), Wegener's granulomatosis (WG), Churg-Strauss syndrome (CSS), Henoch-Schonlein purpura (HSP), clinical features, investigations, management. Antiphospholipid syndrome, pathogenesis, clinical features, investigations, management.

| | | Gout: etiology, classification, clinical |
|---|------------------|---|
| | | features, classification, investigations, |
| | | management. |
| 4 | Gastroenterology | Gastroesophageal reflux disease: |
| | | pathophysiology, clinical features, |
| | | complications, investigations, management. |
| | | Gastritis: common causes, acute gastritis, |
| | | chronic gastritis due to <i>Helicobacter Pylori</i> |
| | | infection, autoimmune chronic gastritis, |
| | | Menetrier's disease, pathogenesis, clinical |
| | | features, investigations, management. |
| | | |
| | | Peptic ulcer disease: gastric ulcer, duodenal |
| | | ulcer, pathophysiology, clinical features, |
| | | investigations, management, surgical |
| | | treatment; complications, clinical features, |
| | | investigations, management. |
| | | Functional disorders of the stomach and |
| | | duodenum: non-ulcer dyspepsia, functional |
| | | causes of vomiting, gastroparesis, clinical |
| | | features, investigations, management. |
| | | Diseases of the small intestine: celiac |
| | | disease, tropical sprue, Whipple's disease, |
| | | pathophysiology, clinical features, |
| | | investigations, management. |
| | | Inflammatory bowel disease: ulcerative |
| | | colitis, Crohn's disease, pathophysiology, |
| | | clinical features, complications, |
| | | investigations, comparison of ulcerative |
| | | colitis and Crohn's disease, management, |
| | | surgical treatment. |
| | | Irritable bowel syndrome: pathophysiology, |
| | | clinical features, investigations, |
| | | management. |
| | | Chronic pancreatitis: causes, |
| | | pathophysiology, clinical features, |
| | | investigations, management. |
| | | Cholecystitis: acute cholecystitis, chronic |
| | | cholecystitis, pathophysiology, clinical |
| | | features, investigations, management. |
| | | Gallstones: pathophysiology, clinical |
| | | features, investigations, management. |
| | | Hepatic cirrhosis: causes, pathophysiology, |
| | | clinical features, investigations, |
| | | |
| | | management. |
| | | Portal hypertension: pathophysiology, |
| | | classification, clinical features, |
| | | investigations, management. |
| | | Fatty liver disease: pathophysiology, |
| | | classification, clinical features, |
| | | investigations, management. |
| | | Inherited liver disease: hemochromatosis, |
| | | Wilson's disease, pathophysiology, |
| | | |

| | T | |
|---|------------|---|
| | | classification, clinical features, |
| | | investigations, management. |
| | | Autoimmune hepatitis: pathophysiology, |
| | | clinical features, investigations, |
| | | management. |
| | | Biliary cirrhosis: classification, |
| | | pathophysiology, clinical features, |
| | | investigations, management. |
| | | Chronic viral hepatitis: causes, |
| | | classification, clinical features, |
| | | investigations, management. |
| 5 | Nephrology | Acute renal failure (acute kidney injury): |
| | | causes, pathogenesis, clinical assessment, |
| | | investigations, management, renal |
| | | replacement therapy, prognosis. |
| | | Chronic kidney disease (chronic renal |
| | | failure): common causes, pathogenesis, |
| | | staging, clinical assessment, renal |
| | | replacement in end-stage renal disease |
| | | (ESRD) (CKD stage 5), prognosis; renal |
| | | transplantation; the adverse effects of CKD, |
| | | investigations, management, prognosis. |
| | | Glomerulonephritis: pathogenesis, |
| | | classifications, minimal change |
| | | |
| | | nephropathy, focal segmental |
| | | glomerulosclerosis, membranous |
| | | nephropathy, IgA nephropathy, rapidly |
| | | progressive (crescentic) glomerulonephritis, |
| | | glomerulonephritis associated with |
| | | infection, acute post-infectious |
| | | glomerulonephritis, clinical assessment, |
| | | investigations, management, prognosis. |
| | | Interstitial nephritis: acute interstitial |
| | | nephritis, causes, acute bacterial |
| | | pyelonephritis, chronic interstitial nephritis, |
| | | causes, clinical and biochemical features, |
| | | diagnosis, management. |
| 6 | Hematology | Iron deficiency anemia: causes, clinical |
| | | features, investigations, management. |
| | | Megaloblastic anemia: classification, causes, |
| | | pernicious anemia, clinical features, |
| | | investigations, management. |
| | | Hemolytic anemia: hemolysis, types, |
| | | diagnosis of hemolysis, causes of hemolytic |
| | | anemia, classification; hereditary |
| | | spherocytosis, glucose-6-phosphate |
| | | dehydrogenase (G6PD) deficiency, sickle- |
| | | cell disease, thalassemias, pathogenesis, |
| | | clinical features, investigations, |
| | | management. |
| | | Autoimmune hemolytic anemia: |
| | | classification, pathogenesis, clinical |
| | 1 | 7 T 6 |

features, investigations, management. Non-immune hemolytic anemia: causes, pathogenesis, clinical features, investigations, management. Acute leukemia: epidemiology, etiology, risk factors for leukemia, classification, acute lymphoblastic leukemia, acute myeloid leukemia, pathogenesis, clinical features, investigations, management, prognosis. Chronic myeloid leukemia: pathogenesis, natural history (three phases), clinical features, investigations, management, prognosis. Chronic lymphocytic leukemia: pathogenesis, clinical features, investigations, staging, management, prognosis. Paraproteinemias: multiple myeloma, classification, pathogenesis, clinical features, investigations, management, prognosis. Aplastic anemia: classification, pathogenesis, clinical features, investigations, management, prognosis. Myeloproliferative disorders: polycythemia rubra vera, pathogenesis, clinical features, investigations, management, prognosis. Thrombocytopenia: idiopathic thrombocytopenic purpura (ITP), pathogenesis, clinical features, investigations, management, prognosis. Hemophilia: genetics, pathogenesis, clinical features, investigations, severity of hemophilia, management, prognosis. 7 Presenting problems in thyroid disease: Endocrinology thyrotoxicosis, hypothyroidism, asymptomatic abnormal thyroid function tests, thyroid enlargement, autoimmune thyroid disease, transient thyroiditis, iodineassociated thyroid disease, simple and multinodular goiter. Presenting problems in diabetes mellitus: newly discovered hyperglycemia, long-term supervision of diabetes, diabetic ketoacidosis, non-ketotic hyperosmolar diabetic coma, lactic acidosis, hypoglycemia, diabetes in pregnancy; complications of diabetes; management of diabetes, diet and lifestyle; anti-diabetic drugs, insulin therapy; long-term complications of diabetes: diabetic

| | retinopathy, diabetic nephropathy, diabetic |
|--|---|
| | neuropathy, the diabetic foot. |

5.2. Course modules and types of studies

| No | Name of course module | L | P | S | SBP | СР | UW | Total hrs |
|----|-----------------------|----|---|---|-----|----|----|-----------|
| 1 | Cardiology | 20 | | | 5 | 45 | 44 | 114 |
| 2 | Pulmonology | 12 | | | | 25 | 21 | 58 |
| 3 | Rheumatology | 10 | | | | 25 | 21 | 55 |
| 4 | Gastroenterology | 12 | | | | 25 | 21 | 57 |
| 5 | Nephrology | 4 | | | | 20 | 23 | 47 |
| 6 | Hematology | 8 | | | | 15 | 20 | 43 |
| 7 | Endocrinology | 10 | | | | 25 | 21 | 59 |

6. Interactive forms of studies

| No | Name of the course section | Duration (hours) | |
|----|----------------------------|------------------|---|
| 1 | Cardiology case study | | 4 |
| 2 | Pulmonology | case study | 6 |
| 3 | Rheumatology | case study | 2 |
| 4 | Gastroenterology | case study | 2 |
| 5 | Nephrology | case study | 2 |
| 6 | Hematology | case study | 2 |
| 7 | Endocrinology | case study | 2 |
| | 20 | | |
| | 7.6% | | |

7. List of teaching materials for the course unsupervised work of students

| No Name of course module | | Types of unsupervised work | Forms of |
|--------------------------|------------|--|-------------------|
| | | | control |
| 1 | Cardiology | note-taking of primary data sources and | a report / a |
| | | other academic literature; | colloquium / |
| | | elaboration of educational materials | defense of a |
| | | (using lecture notes on the educational | project / essay/ |
| | | and scientific literature) and preparation | abstract/ |
| | | of reports for presentation on seminars | checking a |
| | | and practical classes; | workbook / |
| | | search and review of scientific | solving of |
| | | publications, electronic sources of | practical tasks / |
| | | information, preparation of conclusions | preparation of a |
| | | on the review; | case history |
| | | execution of practical tasks, creative | • |
| project-type assi | | project-type assignments, individual and | |
| group course projects; | | | |
| | | problem solving and exercises; | |
| | | writing of abstracts and essays; | |

| | | work with tests and questions for the | |
|---|------------------|---|--|
| | | self-assessment. | |
| 2 | Pulmonology | note-taking of primary data sources and other academic literature; elaboration of educational materials (using lecture notes on the educational and scientific literature) and preparation of reports for presentation on seminars and practical classes; search and review of scientific publications, electronic sources of information, preparation of conclusions on the review; execution of practical tasks, creative project-type assignments, individual and group course projects; problem solving and exercises; writing of abstracts and essays; work with tests and questions for the self- | a report / a colloquium / defense of a project / essay / abstract / checking a workbook / solving of practical tasks / preparation of a case history |
| 3 | Rheumatology | assessment. note-taking of primary data sources and other academic literature; elaboration of educational materials (using lecture notes on the educational and scientific literature) and preparation of reports for presentation on seminars and practical classes; search and review of scientific publications, electronic sources of information, preparation of conclusions on the review; execution of practical tasks, creative project-type assignments, individual and group course projects; problem solving and exercises; writing of abstracts and essays; work with tests and questions for the self-assessment. | a report / a colloquium / defense of a project / essay / abstract / checking a workbook / solving of practical tasks / preparation of a case history |
| 4 | Gastroenterology | note-taking of primary data sources and other academic literature; elaboration of educational materials (using lecture notes on the educational and scientific literature) and preparation of reports for presentation on seminars and practical classes; search and review of scientific publications, electronic sources of information, preparation of conclusions on the review; execution of practical tasks, creative project-type assignments, individual and group course projects; | a report / a colloquium / defense of a project / essay / abstract / checking a workbook / solving of practical tasks / preparation of a case history |

| | <u> </u> | 11 1 1 1 | |
|---|----------------|--|--|
| | | problem solving and exercises; | |
| | | writing of abstracts and essays; | |
| | | work with tests and questions for the self- | |
| | | assessment. | |
| 5 | Nephrology | note-taking of primary data sources and other academic literature; elaboration of educational materials (using lecture notes on the educational and scientific literature) and preparation of reports for presentation on seminars and practical classes; | a report / a colloquium / defense of a project / essay / abstract / checking a workbook / |
| | | search and review of scientific publications, electronic sources of information, preparation of conclusions on the review; execution of practical tasks, creative | solving of practical tasks / preparation of a case history |
| | | project-type assignments, individual and group course projects; problem solving and exercises; | |
| | | writing of abstracts and essays; work with tests and questions for the self- assessment. | |
| 6 | Hematology | note-taking of primary data sources and other academic literature; elaboration of educational materials (using lecture notes on the educational and scientific literature) and preparation of reports for presentation on seminars and practical classes; search and review of scientific publications, electronic sources of information, preparation of conclusions on the review; execution of practical tasks, creative project-type assignments, individual and group course projects; problem solving and exercises; writing of abstracts and essays; work with tests and questions for the self-assessment. | a report / a colloquium / defense of a project / essay / abstract / checking a workbook / solving of practical tasks / preparation of a case history |
| 7 | Endocrinology. | note-taking of primary data sources and other academic literature; elaboration of educational materials (using lecture notes on the educational and scientific literature) and preparation of reports for presentation on seminars and practical classes; search and review of scientific publications, electronic sources of information, preparation of conclusions on the review; | a report / a colloquium / defense of a project / essay / abstract / checking a workbook / solving of practical tasks / preparation of a case history |

| group course projects; problem solving and exercises; writing of abstracts and essays; work with tests and questions for the self- | execution of practical tasks, creative project-type assignments, individual and | |
|--|---|--|
| assessment. | group course projects; problem solving and exercises; writing of abstracts and essays; work with tests and questions for the self- | |

8. Forms of control

8.1. Current forms of control:

- oral (an interview, a report, a colloquium, defense of a project)
- written (tests, term papers, essays, abstracts, checking of lecture notes, solving of practical tasks, preparation of a case history).

A subject list of reports, essays, tests, term papers, test collections and cases are shown at the section 'Evaluation tools'.

8.2. Forms of interim assessment (examination)

2 stages of examination:

1stStage –case(name of the stage)

2ndStage –oral interview(name of the stage)

Questions for the examination are shown at the section 'Set of the evaluation tools for the current control and interim assessment of students'.

9. Library and information materials of the course

- 9.1. Compulsory course literature
 - 1. Davidson's principles and practice of medicine / ed. S. Ralston [et al.]. 23rd ed. Edinburgh: ELSEVIER, 2018. 1417 p.
 - 2. Ivashkin V.T. Internal diseases propedeutics [Электронныйресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -M.: ГЭОТАР-Медиа, 2020. -176 p.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html
 - 3. Oslopov V. N. Case history of therapeutic patient: manual [Электронныйресурс]/ V. N. Oslopov, O. V. Bogoyavlenskaya, Yu. V. Oslopova. -M.: GEOTAR-Media, 2014. -176 p.- URL: http://www.studentlibrary.ru/book/ISBN9785970433836.html
 - 4. Oslopov V. N. General Care of a Patient [Электронныйресурс]: tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2019. -208 с.- URL:
 - https://www.studentlibrary.ru/ru/book/ISBN9785970452349.html
 - 5. Steffers G. General Pathology and Internal Medicine for Physical Therapists [Электронныйресурс]: учебник/ G. Steffers, S. Credner. -1st ed.: Thieme, 2012- URL: https://medone-education.thieme.com/ebooks/2093236?fromSearch=true#/ebook_2093236 SL80475533

- 6. Внутренние болезни [Электронный ресурс] : учебник в 2 т./ ред.: В. С. Моисеев, А. И. Мартынов, Н. А. Мухин Т.1.. -Москва: ГЭОТАР-Медиа, 2019. -960 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970453148.html
- 7. Внутренние болезни [Электронный ресурс] : учебник в 2 т./ ред.: В. С. Моисеев, А. И. Мартынов, Н. А. Мухин Т.2.. Москва: ГЭОТАР-Медиа, 2019. -896 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970453155.html

9.2. Supplementary course literature

- 1. Harrison's Principles of internal medicine [Text] Vol. I: учебное пособие/ed. D. L. Kasper. 19th ed. New York: McGraw Hill: Medical, 2015. 1796 p. ISBN 978-0-07-180215-4. 978-0-07-180213-0, Б.ц.
- 2. Harrison's Principles of internal medicine [Text] Vol. II: учебное пособие/ed. D. L. Kasper. 19th ed. New York: McGraw Hill: Medical, 2015. 3610 p. –ISBN 978-0-07-180215-4. 978-0-07-180214-7, Б.ц.
- 3. Siegenthaler W. Differential Diagnosis in Internal Medicine: From Symptom to Diagnosis [Электронныйресурс]/ W. Siegenthaler: Thieme, 2007- URL: https://medone-education.thieme.com/ebooks/2193980?fromSearch=true#/ebook_2193980_SL83144759
- 4. Внутренние болезни. Тесты и ситуационные задачи [Электронный ресурс]: учебное пособие для студентов учреждений высш. проф. образования/ В. И. Маколкин [и др.]. -Москва: ГЭОТАР-Медиа, 2012. 304 с.: ил.- URL: http://www.studmedlib.ru/book/ISBN9785970423912.html
- 5. Маколкин В. И. Внутренние болезни [Электронный ресурс] : учебник/ В. И. Маколкин, С. И. Овчаренко. -6-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2017. -768 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970441572.html

9.3. List of Internet resources required for mastering of the course

- 1. www.studentconsult.com (a copy of Davidson's Principles and practice of medicine has a special code for access);
- 2. www.medicalstudent.com/
- 3. www.merckmanuals.com/
- 4. WWW.MEDSCAPE.COM/MEDICALSTUDENTS
- 5. www.mednet.ucla.edu/
- 6. HARDINMD.LIB.UIOWA.EDU/INDEX.HTML
- 7. www.healthline.com/
- 8. www.youtube.com/user/ClevelandClinic
- 9. www.youtube.com/user/emedtv
- 10.www.escardio.org/

- 11.my.americanheart.org/professional/StatementsGuidelines/ByTopic/Topics A-C/ACCAHA-Joint-Guidelines_UCM_321694_Article.jsp
- 12.www.linksmedicus.com
- 13.http://www.rmj.ru
- 14.http://www.consilium-medicum.com
- 15.http://www.pulmonology.ru
- 16.http://www.cardiosite.ru
- 17.http://www.rheumatolog.ru
- 18.http://www.m-vesti.ru/rggk/rggk-rules.shtml
- 19.http://medpulse.h1.ru
- 20.http://www.medlinks.ru
- 21.http://www.OSSN.ru
- 22.http://www.therapy.narod.ru
- 23.http://mzdravrt.kazan.ru/rmbic/update/uws.htm
- 24.http://sci-lib.com
- 25.http://www.jrheum.com
- 26.http://scholar.google.com
- 27.http://www.medscape.com
- 28.http://www.nlm.nih.gov
- 29.http://www.guideline.gov
- 30.http://www.rmj.ru
- 9.4. List of information technologies used in the educational process within the discipline, including software and referral systems

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения всех | Адрес (местоположение) помещений для |
|---|--|
| видов учебной деятельности, предусмотренной | проведения всех видов учебной деятельности, |
| учебным планом, в том числе помещения для | предусмотренной учебным планом (в случае |
| самостоятельной работы, с указанием перечня | реализации ФГБОУ ВО СГМУ (г. |
| основного оборудования, учебно-наглядных пособий | Архангельск) Минздрава России программы в |
| и используемого программного обеспечения | сетевой форме дополнительно указывается |
| | наименование организации, с которой |
| | заключен договор) |
| Учебная аудитория для проведения занятий | 163000, г. Архангельск, просп. Троицкий, д. 51 |
| лекционного типа № 2403 Морской медицины, | |
| административный учебный корпус, 4 этаж | |
| а) перечень основного оборудования: | |
| Комплект учебной мебели (столы, стулья, | |
| экран,доска) рабочее место преподавателя, рабочие | |
| места для обучающихся на 300 мест. | |
| б) наборы демонстрационного оборудования | |
| колонки, моноблок, проектор, экран | |

в) перечень учебно-наглядных пособий: схемы, таблицв

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номерлицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 452 этаж главного корпуса терапевтическое отделение № 1

Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, наборы электрокардиограмм, рентгенограмм с патологией сердечно-сосудистой системы, набор бланков с указанием лабораторных показателей острофазового воспаления и наличия стрептококковой инфекции, кардиоспецифических ферментов, набор рентгенограмм и спирограмм с патологией органов дыхания, набор анализов желудочного сока, желчи, рентгенограмм с патологией органов пищеварения, бланков с указанием лабораторных показателей, характерных для заболеваний органов пищеварения, набор анализов крови и исследований костного мозга с патологией системы кроветворения, набор анализов мочи с патологией мочевыделительной системы, муляжи, наглядные пособия, таблицы.

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 34, 2 этаж главного корпуса терапевтическое отделение № 1

163045, Архангельская область, г. Архангельск, пр. Ломоносова, д. 292,

163045, Архангельская область, г. Архангельск, пр. Ломоносова, д. 292

Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихсямежду ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

пособия, раздаточный материал к практическим занятиям по всем темам дисциплины.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Учебные наборы электрокардиограмм, рентгенограмм с патологией сердечно-сосудистой системы, набор бланков с указанием лабораторных показателей острофазового воспаления и наличия стрептококковой инфекции, кардиоспецифических ферментов, набор рентгенограмм и спирограмм с патологией органов дыхания, набор анализов рентгенограмм желудочного сока, желчи, патологией органов пищеварения, бланков указанием лабораторных показателей, характерных для заболеваний органов пищеварения, набор анализов крови и исследований костного мозга с патологией системы кроветворения, набор анализов мочи с патологией мочевыделительной системы, муляжи, наглядные пособия, таблицы.

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

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Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарного типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации№ 209, учебный корпус, 2 этаж

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, муляжи, тренажеры, манекены

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номерлицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

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163001, г. Архангельск, просп. Троицкий, д. 180

| Trafficinspector. Лицензионное соглашение | №1051- | |
|---|--------|--|
| 08 от 10.04.2008, бессрочно | | |

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education "NORTHERN STATE MEDICAL UNIVERSITY" of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline Infectious Diseases

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) **V / 9, 10**

Form of the interim assessment **Examination**

Department of Infectious Diseases

Discipline workload 324 (academic hours) / 9 (credits)

Approved at the department meeting

Minutes No.

June 22th 2020

Head of the department

O.V. Samodova

Author and compiler:

Krieger Ekaterina Anatolievna, Associate Professor of the Department of Infectious
Diseases, Candidate of Medical Sciences

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to teach students to provide medical care to patients with infectious pathology. |
|-------------------------|--|
| Tasks of the discipline | - formation of knowledge on diagnostic, treatment and prevention of infectious diseases; |
| | - development of clinical skills required to diagnose, treat and prevent infectious diseases; |
| | - to form the ability to diagnose, treat and prevent infectious diseasesю |

2. Position of the course (module) within the structure of the educational program

The program is drawn up following the requirements of the Federal State Education Standard (FSES) in the training field: 31.05.01 «General medicine».

Block 1. Basic part.

The course is a clinical specialty of internal medicine focusing on the assessment, diagnosis and management of infectious diseases.

Mastering of the course require certain core competencies which are essential for good medical practice. These comprise the generic components of the curriculum such as anatomy, physiology, biochemistry, microbiology, public health, pharmacology, internal medicine.

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed competences | Competences | | |
|---|--|---|-------------------|
| _ | a student has knowledge of | a student is able to | a student masters |
| GPC-№ | Ge | neral professional co | ompetences |
| GPC-6 readiness to maintain medical records | rules of medical ethics, laws and regulations on handling confidential information | obtain essential and often sensitive information from the patient and the patient's family (history taking) carefully perform physical examination of patients with infectious diseases identify and explain symptoms and signs of common infectious diseases maintain medical records build a strong rapport | |

| | I | I .a | 1 |
|------------------------------------|---------------------------------|---|----------|
| | | with patients and their | |
| | | families, establishing a respectful basis for the | |
| | | doctor-patient | |
| | | relationship | |
| PC -№ | | Professional comp | petences |
| PC-3 | etiology, | organize prevention | |
| ability and readiness to | epidemiology, | measures | |
| undertake anti-epidemic | prevention of common infectious | identify common | |
| activities, organize | diseases | abnormalities and urgent findings on frequently | |
| protection of populations | | ordered diagnostic | |
| in areas of particularly | | studies | |
| dangerous infections, in | | | |
| situations of | | | |
| deterioration of the | | | |
| radiation situation, | | | |
| natural disasters and | | | |
| other emergencies | | | |
| PC-5 | etiology, | collect and analyze | |
| readiness to collect and | epidemiology, pathogenesis, | patient's complaints and medical history | |
| analyze patient's | clinical features, | conduct physical | |
| complaints and medical | diagnostics, | examination | |
| history, examination | treatment and | | |
| results, laboratory, | prevention of common infectious | complete medical | 1 |
| instrumental, forensic | diseases | records | |
| and other data to | | | |
| understand the patient's | | identify common | |
| condition or recognize | | abnormalities and urgent findings on frequently | |
| the presence or absence of disease | | ordered diagnostic | |
| or disease | | studies | |
| PC-6 | etiology, | conduct physical | |
| ability to recognize | epidemiology, pathogenesis, | examination | |
| patient's major | clinical features, | identify and explain | |
| pathological conditions, | diagnostics, treatment and | symptoms and signs of common infectious | |
| symptoms, syndromes, | | diseases | |
| nosological forms in | prevention of common infectious | make a diagnosis | |
| accordance with the | diseases | identify common | |
| International Statistical | | abnormalities and urgent | |
| Classification of | | findings on frequently | |
| Diseases and Related | | ordered diagnostic studies | |
| Health Problems, 10th | | generate an appropriate | |
| revision | | differential diagnosis of | |
| | | infectious diseases, | |
| | | based on logical clinical | |
| | | and laboratory assessment | |
| PC-8 | clinical features, | manage and treat | |
| ability to decide on | diagnostics, | patients with infectious | |
| management of patients | treatment | diseases | |
| with various nosological | | | |
| forms | | | |
| | l | 1 | I |

| PC-9 readiness to manage and treat patients with various nosological forms in out-patient and day-care organizations | pathogenesis, clinical features, diagnostics, treatment of common infectious diseases | manage and treat patients with infectious diseases | |
|---|--|---|--|
| PC-10 readiness to provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do not involve a threat to patient's life and do not require emergency medical care | pathogenesis, clinical features, diagnostics, treatment of common infectious diseases | identify and explain symptoms and signs of common infectious diseases make a diagnosis identify common abnormalities and urgent findings on frequently ordered diagnostic studies | |

4. Volume of the course (module) and types of the academic classes: Total workload of the course is 9 credits.

| | Type of the academic work | Total hours | Term |
|--------------|--------------------------------------|-------------|------|
| Discipline | | | |
| workload | Lectures (L) | 50 | 9,10 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 70 | 9,10 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | 33,7 | 10 |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 10 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 168 | 9,10 |
| | Examination control (EC) | 0,3 | 10 |
| | Total course workload | 324 | 9,10 |
| | | | |

5. Contents of the course:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|----|----------------------------------|--|
| 1 | 2 | 3 |
| 1 | Section 1. | General issues of infectious diseases. |
| | Overview of infectious diseases. | Infectious disease epidemiology: |
| | | background, important definitions related to |
| | | specific concepts. Principles of diagnostic, |
| | | treatment, prevention and control of |
| | | infectious disease. Case history structure. |

| 2 | Section 2. | Diarrheal diseases. |
|---|------------------------------|--|
| | Bacterial infections. | Typhoid fever. Paratyphoid fever. |
| | | Salmonellosis. Shigellosis. E. coli |
| | | infection. Food poisoning. Botulism. |
| | | Cholera. |
| | | Droplet infections. |
| | | Meningococcal infections. Diphtheria. |
| | | Scarlet fever. Pertussis. |
| | | Zoonozes. |
| | | Leptospirosis. Yersiniosis. Tetanus. |
| | | Anthrax. Plague. |
| 3 | Section 3. | Acute viral diarrhea. |
| | Viral infections. | Rotavirus infection. Viral hepatitis with |
| | | fecal-oral transmission (hepatitis A and E). |
| | | Enterovirus infection. Polyomielitis. |
| | | Parenteral and sexually transmited |
| | | diseases. |
| | | Viral hepatitis B, C, D. HIV infection. |
| | | AIDS-related diseases. |
| | | Respiratory infections. |
| | | Herpes infection (chicken pox, shingles, |
| | | infectious mononucleosis). Influenza. |
| | | Upper respiratory tract infections |
| | | (parainfluenza, rhinovirus infection, RS- |
| | | virus infection, adenovirus infection, |
| | | coronavirus infection). |
| | | Measles. Rubella. Mumps. |
| | | Zoonozes. |
| | | Rabies. Yellow Fever. |
| | | Haemorrhagic fevers. |
| | | Ebola hemorrhagic fever. Lassa |
| | | hemorrhagic fever. Marburg hemorrhagic |
| | | fever. Dengue fever. |
| 4 | Section 4. | Parasitic infections. |
| | Parasitic infections. | Helminthosis. |
| | | Nematosis. Ascariasis. Enterobiasis. |
| | | Filariasis. |
| | | Cestodosis. Diphyllobothriasis. Taeniasis. |
| | | Echinococcosis. |
| | | Trematodoses. Opisthorchiasis. Fascioliasis. |
| | | Parasitosis. Malaria. Toxoplasmosis. |

5.2. Sections and types of studies

| No. | Name of the course | L | S | P | CP | LBP | SBP | UW | Total |
|-----|----------------------------------|----|---|---|----|-----|-----|----|-------|
| | section | | | | | | | | hours |
| 1 | Overview of infectious diseases. | 2 | | | 5 | | | 12 | 19 |
| 2 | Bacterial infections. | 24 | | | 50 | | | 40 | 114 |
| 3 | Viral infections. | 24 | | | 50 | | | 40 | 114 |

| 4 | Parasitic infections. | 12 | | 25 | | 40 | 77 |
|-------|-----------------------|----|--|-----|--|-----|-----|
| Total | (hours) | 62 | | 130 | | 132 | 324 |

6. Interactive forms of studies

| No | Name of the course section | Interactive forms of studies | Duration (hours) |
|----|----------------------------|--|------------------|
| 1 | Overview of infectious | Debates "Herd immunity" | 1 |
| | diseases. | Discussion "Sensitive & specific tests?" | 1 |
| 2 | Bacterial infections. | Role play "Bloody stools" | 1 |
| | | Case study on meningococcal infection "Look and see" | 2 |
| 3 | Viral infections. | Case study on rotavirus infection "Clean water", "Floppy baby" | 2 |
| | | Case study on parainfluenza infection "Noisy breathing" | 1 |
| | | Discussion "Diagnosis of hepatitis" | 2 |
| | | Algorithm for management of croup in the outpatient setting | 1 |
| 4 | Parasitic infections. | Group conference "Parasites inside us" | 5 |
| | | Total (hours) | 16 |
| | | Total (% of in-class learning) | 12,3% |

7. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No | Name of the course section | Types of the unsupervised work | Forms of control |
|----|----------------------------|--------------------------------|--|
| | Overview of infectious | Cognitive level | ✓ preparation of reports for presentation on seminars |
| 1 | diseases | Reproductive level | ✓ to develop a clinical case and present clinical issues in the context of a patient's situation for demonstrating clinical decision-making ✓ to develop a differential diagnosis (comparison) tables ✓ review of scientific publications ✓ essay |
| | | Creative level | ✓ ooutbreak investigation; ✓ aanalysis of statistical and empirical data, drawing conclusions on the basis of the analysis |
| | Bacterial infections | Cognitive level | ✓ preparation of reports for presentation on seminars |
| 2 | | Reproductive level | ✓ to develop a clinical case and present clinical issues in the context of a patient's situation for demonstrating clinical decision-making ✓ to develop a differential diagnosis (comparison) tables ✓ review of scientific publications |

| | | | ✓ essay |
|---|----------------------|--------------------|---|
| | | Creative level | ✓ analysis of statistical and empirical data, drawing conclusions on the basis of the analysis |
| | Viral infections | Cognitive level | ✓ preparation of reports for presentation on seminars |
| 3 | | Reproductive level | ✓ to develop a clinical case and present clinical issues in the context of a patient's situation for demonstrating clinical decision-making ✓ to develop a differential diagnosis (comparison) tables ✓ essay |
| | | Creative level | ✓ analysis of statistical and empirical data, drawing conclusions on the basis of the analysis |
| | Parasitic infections | Cognitive level | ✓ preparation of reports for presentation on seminars |
| 4 | | Reproductive level | ✓ to develop a clinical case and present clinical issues in the context of a patient's situation for demonstrating clinical decision-making ✓ to develop a differential diagnosis (comparison) tables |
| | | Creative level | ✓ analysis of statistical and empirical data, drawing conclusions on the basis of the analysis |

8. Forms of control

- 8.1. Current forms of control
- oral (an interview, a report, a colloquium, presentations of projects)
- written (checking of tests, review papers, essays, abstracts, lecture notes, solving of practical tasks, preparation of a case history).

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the section 'Evaluation tools'.

8.2. Forms of the interim assessment (examination)

Stages of the interim assessment

- 1. Stage multiple choice test (50 questions from the MCI screening test)
- 2. Stage discussion of theoretical questions
- 3. Stage cases of multidisciplinary approach

9. Library and information materials of the course

- 9.1. Compulsory literature
 - 1. Ghai Essential Pediatrics / ed. V.K. Paul, A. Bagga. 8d ed. New Delhi: CBS Publishers and distributors, 2014. 783 p.
 - 2. Harrison's Principles of internal medicine. Vol. I: учебное пособие/ ed. D. L. Longo. 19th ed. -New York: Mc Graw Hill : Medical, 2015. 1796 p.
 - 3. Pediatric infectious diseases [Электронный ресурс] : учебное пособие / Е. А. Krieger, O. V. Samodova. Архангельск : Изд-во Северного государственного медицинского университета, 2018. 114 с.

- 4. Essentials of Clinical Examination Handbook. [Электронный ресурс]/ Y. Shi [и др.]. 8th ed.: Thieme, 2018- URL: https://medone-education.thieme.com/ebooks/2251929#/ebook_2251929_SL84831974
- 5. Steffers G. General Pathology and Internal Medicine for Physical Therapists [Электронный ресурс]: учебник/ G. Steffers, S. Credner. -1st ed.: Thieme, 2012-URL: https://medone-education.thieme.com/ebooks/2093236?fromSearch=true#/ebook_2093236_SL804755 33
- 6. Yushuk N.D. Infectious diseases [Электронный ресурс]: textbook/ N. D. Yushuk, Yu. YA. Vengerov. -Москва: ГЭОТАР-Медиа, 2020. -464 с.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970455043.html
- 7. Taylor T. Learning Microbiology and Infectious Diseases: Clinical Case Prep for the [Электронный ресурс]/ Tracey A.H. Taylor, Dwayne Baxa, Matthew Sims. Thieme, 2020- URL: https://medone-education.thieme.com/ebooks/cs_11090573#/ebook_cs_11090573_cs78
- 8. Покровский В.И. Инфекционные болезни и эпидемиология [Электронный ресурс]/ В. И. Покровский, С. Г. Пак, Н. И. Брико. -3-е изд., испр. и доп.. Москва: ГЭОТАР-Медиа, 2016. -1008 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970438220.html

9.2. Supplementary literature

- 9. J. Crawley, C. Chu, G. Mtove, et al. Malaria in children. Lancet Infectious Diseases. 2010; 375: 1468–1481.
- 10. H. Feldmann, T.W. Geisbert. Ebola haemorrhagic fever. Lancet Infectious Diseases. 2011; 377: 849–862.
- 11. J.B. Harris, R.C. LaRocque, F. Qadri, et al. Cholera. Lancet Infectious Diseases. 2012; 379: 2466–2476.
- 12. T. Heikkinen, A. Järvinen. The common cold. Lancet Infectious Diseases. 2003; 361: 51–59.
- 13. U. Heininger, J.F. Seward. Varicella. Lancet Infectious Diseases. 2006; 368: 1365–1376.
- 14. A. Hviid, S. Rubin, K. Mühlemann. Mumps. Lancet Infectious Diseases. 2008; 371: 932–944
- 15. S.A. Hughes, H. Wedemeyer, P.M. Harrison, et al. Hepatitis delta virus. Lancet Infectious Diseases. 2011; 378: 73-85.
- 16. N. Kamar, R. Bendall, F. Legrand-Abravanel, N. Xia, et al. Hepatitis E. Lancet Infectious Diseases. 2012; 379: 2477-2488.
- 17. Y. Liaw, C. Chu. Hepatitis B virus infection. Lancet Infectious Diseases. 2009; 373: 582–592.
- 18. L.Lindquist, O.Vapalahti. Tick-borne encephalitis. Lancet Infectious Diseases. 2008; 371: 1861–1871.
- 19. A. Maheshwari, S. Ray, P.J. Thuluvath. Acute hepatitis C. Lancet Infectious Diseases. 2008; 372: 321–32.
- 20. W.J. Moss, D.E. Griffin. Measles. Lancet Infectious Diseases. 2012; 379: 153–164.
- 21. Netter's infectious diseases. / ed. E. C. Jong. Philadelphia: Elsevier/Saunders, 2012. 602 p.
- 22. K.G. Nicholson, J.M. Wood, M. Zambon. Influenza. Lancet Infectious Diseases. 2003; 362: 1733–1745.
- 23. R.L. Smyth, P.J.M. Openshaw. Bronchiolitis. Lancet Infectious Diseases. 2006; 368: 312–322.
- 24. D.S. Stephens, B. Greenwood, P. Brandtzaeg. Epidemic meningitis, meningococcaemia, and Neisseria meningitidis. Lancet Infectious Diseases. 2007; 369: 2196–2210.

- 25. M.J. Warrell, D.A. Warrell. Rabies and other lyssavirus diseases. Lancet Infectious Diseases. 2004; 363: 959–969.
- 26. Krieger E. A. Pediatric infections in a nutshell [Электронный ресурс]: a manual for medical students/ E. A. Krieger, O. V. Samodova. -Архангельск: Изд-во Северного государственного медицинского университета, 2018. -111 с.- URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S2
 - bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S2 1STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S2 1P02=1&S21P03=I=&S21STR=elb/K83-681252
- 27. Workbook medical parasitology [Электронный ресурс]/ comp.: E. L. Kurochkina, O. M. Feliksova. -Архангельск: Изд-во Северного государственного медицинского университета, 2018. -48 p.- URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S2 1STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S2 1P02=1&S21P03=I=&S21STR=elb/W83-060015
- 28. Атлас инфекционных болезней [Электронный ресурс]/ под ред.: И. В. Лучшева, С. Н. Жарова, В. В. Никифорова. -Москва: ГЭОТАР-Медиа, 2014. -224 с.- URL: http://www.studentlibrary.ru/book/ISBN9785970428771.html
- 29. Вирусные болезни [Электронный ресурс] : учеб. пособие/ ред. Н. Д. Ющук . Москва: ГЭОТАР-Медиа, 2016. -640 с.- URL: http://www.studmedlib.ru/book/ISBN9785970435847.html

9.3. List of the Internet resources required for mastering of the course (module)*

| № | Internet resource | Description |
|---|--------------------------|---|
| 1 | http://rehydrate.org | Clear, practical advice on preventing and treating diarrhoeal diseases. Guidelines from medical authorities on diagnosis, treatment, symptoms, causes and risk factors, tests, training tips, feedback from the field, alternative medicine and much more for health professionals. |
| 2 | http://www.who.int/en/ | WHO official website |
| 3 | http://www.medscape.org/ | Medscape is a web resource for physicians and health professionals. It features peer-reviewed original medical journal articles, CME (Continuing Medical Education), a customized version of the National Library of Medicine's MEDLINE database, daily medical news, major conference coverage, and drug information—including a drug database (Medscape Drug Reference, or MDR) and drug interaction checker. |
| 4 | http://www.unicef.org/ | UNICEF official website |

9.4. List of the information technologies used in the educational process of the course (module)
- software: certified, license programs of general and educational assignment, information & reference systems – Garant, Consultant and etc.

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения всех | Адрес (местоположение) помещений для |
|---|--|
| видов учебной деятельности, предусмотренной | проведения всех видов учебной деятельности, |
| учебным планом, в том числе помещения для | предусмотренной учебным планом (в случае |
| самостоятельной работы, с указанием перечня | реализации ФГБОУ ВО СГМУ (г. Архангельск) |
| основного оборудования, учебно-наглядных | Минздрава России программы в сетевой форме |
| пособий и используемого программного | дополнительно указывается наименование |
| обеспечения | организации, с которой заключен договор) |
| Учебная аудитория для проведения занятий | 163000, г. Архангельск, просп. Троицкий, д. 51 |
| лекционного типа № 2102 имени Н.П.Бычихина, | |
| административный учебный корпус, 1 этаж | |
| а) перечень основного оборудования: | |
| Комплект учебной мебели (столы, стулья, | |
| экран, доска) рабочее место преподавателя, | |
| рабочие места для обучающихся на 300 мест. | |
| б) наборы демонстрационного оборудования | |
| проектор, моноблок, экран, колонки | |
| в) перечень учебно-наглядных пособий: | |
| в) перечень учеоно-нагляоных посооии. схемы, таблицы | |
| | |
| г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии | |
| 26FE-191125-134819-1-8403. | |
| MS Office 2007. MS Win Starter 7. MS Windows | |
| | |
| Prof 7 Upgr. MS Windows Server CAL 2008 Device | |
| САL. Номер лицензии 46850049, бессрочно | |
| Radmin Viewer 3. Radmin Server 3. Номер | |
| документа 11001793 | |
| Traffic inspector. Лицензионное соглашение | |
| №1051-08 от 10.04.2008, бессрочно | 152015 |
| Учебная аудитория для занятий семинарского | 163045, Архангельская область, г. Архангельск, |
| типа, групповых и индивидуальных | ул. Самойло, д. 17 |
| консультаций, текущего контроля и | |
| промежуточной аттестации № 14, 4 этаж | |
| главного корпуса ЦИБ | |
| Договор № 550 от 05.07.2017 года об | |
| организации практической подготовки | |
| обучающихся между ФГБОУ ВО СГМУ (г. | |
| Архангельск) Минздрава России и ГБУЗ | |
| Архангельской области «Архангельская | |
| областная клиническая больница». Срок | |
| действия Договора – 5 лет. Оборудование | |
| согласно Приложению № 3 к Договору. | |
| а) перечень основного оборудования: | |
| Комплект учебной мебели (столы, стулья, | |
| экран,доска) рабочее место преподавателя, | |
| рабочие места для обучающихся на 14 мест. | |
| б) наборы демонстрационного оборудования | |
| ноутбук, проектор | |
| в) перечень учебно-наглядных пособий: | |
| Наглядные пособия, раздаточный материал к | |
| практическим занятиям по всем темам | |
| дисциплины, укладка для профилактики | |
| заражения ВИЧ-инфекцией, укладка | 1 |
| | |
| универсальная для забора материала от людей и объектов окружающей среды для | |

исследования на особо опасные инфекционные болезни г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163045, Архангельская область, г. Архангельск, типа, групповых И индивидуальных ул. Самойло, д. 17 консультаций, текущего контроля промежуточной аттестации № 13, 4 этаж главного корпуса ЦИБ Договор № 550 от 05.07.2017 года об практической организации подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора - 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплин, схемы по темам занятий с нозологическими формами г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарного 163001, г. Архангельск, просп. Троицкий, д. 180 групповых индивидуальных типа, И контроля консультаций, текущего промежуточной аттестации № 409 учебный корпус, 4 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, схемы по темам занятий нозологическими формами г) используемое программное обеспечение:

| Kaspersky endpoint Security. Номер лицензии |
|--|
| 26FE-191125-134819-1-8403. |
| MS Office 2007. MS Win Starter 7. MS Windows |
| Prof 7 Upgr. MS Windows Server CAL 2008 Device |
| САL. Номер лицензии 46850049, бессрочно |
| Radmin Viewer 3. Radmin Server 3. Номер |
| документа 11001793 |
| Traffic inspector. Лицензионное соглашение |
| №1051-08 от 10.04.2008, бессрочно |

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th2020

SYLLABUSOF THE DISCIPLINE

Discipline **Phthisiology**

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) **V** / **9**, **10**

Form of the interim assessment **Examination**

Department of Phthisiopulmonology

Discipline workload 180 (academic hours)/5(credits)

Approved at the department meeting

Minutes No.

June 25th 2020

Head of the department

A.O. Maryandyshev

Authors and compilers:

Mariandyshev Andrey Olegovich, Head of the Department of Phthisiopulmonology, Professor of the Department of Phthisiopulmonology, Doctor of Medical Sciences;

Nikishova Elena Ilyinichna, Associate Professor of the Department of Phthisiopulmonology, Doctor of Medical Sciences

Arkhangelsk, 2020

1. Goal and tasks of the mastering of the course "Phthisiology"

| Goal of the discipline | The goal of the discipline is to form professional competencies of a specialist with the willingness and ability to carry out independent diagnostic, therapeutic and preventive activities in assisting patients with tuberculosis and people at high risk of tuberculosis. |
|-------------------------|--|
| Tasks of the discipline | - development of motivation for training for the professional activities of a doctor to provide medical care to patients with tuberculosis and people at high risk of tuberculosis; |
| | - formation of knowledge and skills on the diagnosis, treatment and prevention of tuberculosis; |
| | - development of professionally important personal qualities such as responsibility, competence, empathy. |

2. Position of the course (module) within the structure of the educational program

The program is compiled in accordance with the requirements of the Federal State Educational Standard of Higher Education in the field of preparation of "medical business", the clinical course "Phthisiology" is included in the basic (mandatory) part of Block 1.

To master the module "Phthisiology", a preliminary study of the following courses is necessary: normal Phthisiology; pathological Phthisiology; pathological anatomy; microbiology, virology, immunology; general hygiene, social and hygienic monitoring; public health and healthcare, infectious and parasitic diseases; propaedeutics of internal diseases; radiation diagnostics, neurology, medical genetics.

The main attention is paid to studying the properties of the causative agent of tuberculosis, risk factors for latent tuberculosis infection and active tuberculosis, the clinical manifestations of various forms of the tuberculosis process, the organization of disease detection, treatment and preventive measures. Teaching of the course "Phthisiology" is carried out, including on the bases of specialized TB institutions / departments

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

Professional competencies (PC)

<u>PC-1</u> (ability and readiness to implement a set of measures to preserve and promote health, including healthy lifestyle, prevent the onset and/or spread of

diseases, their early detection, identification of causes and circumstances of their emergence and development, as well as measures to eliminate harmful effects of environmental factors on human health)

Keeping medical documentation

Specific learning objectives:

A. Knowledge: Students should be able to define, describe, and discuss:

The main properties of the causative agent of tuberculosis

Routes of transmission of tuberculosis infection

Mycobacterium tuberculosis infection risk factors

Risk Factors for Active Tuberculosis

Groups at high risk for tuberculosis

Description of sources of tuberculosis infection according to the degree of epidemic danger The main anti-epidemic measures aimed at preventing the spread of tuberculosis in medical organizations

Immunological prophylaxis of tuberculosis

Indications and methods for the preventive treatment of latent tuberculosis infection

B. Skills: Students should be able to demonstrate specific skills, including:

Draw up and justify a preventive action plan in groups of people at high risk of infection with tuberculosis mycobacteria

Draw up and justify a preventive action plan in groups of people at high risk for active tuberculosis

Draw up and justify a plan of anti-epidemic measures in the foci of tuberculosis infection Draw up and justify a plan of anti-epidemic measures to prevent the spread of tuberculosis in medical organizations

Evaluate effectiveness

immunological prophylaxis of tuberculosis

To substantiate the indications and methods of preventive therapy for latent tuberculosis infection

C. Attitudes and professional behaviors: Students should be able to:

The methodology of preventive measures in groups of people at high risk of infection with tuberculosis mycobacteria

Methods of preventive measures in groups of people at high risk for active tuberculosis

The methodology of anti-epidemic measures in the foci of tuberculosis infection

The methodology of anti-epidemic measures to prevent the spread of tuberculosis in medical organizations

Evaluation Methodology

immunological prophylaxis of tuberculosis

The methodology of preventive therapy of latent tuberculosis infection

<u>PC-2</u> (ability and readiness to perform preventive medical examinations, periodic health examinations and provide follow-up care)

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 4. The physiologic mechanisms that explain key findings in the history and physical exam.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 5. Performing a physical examination in a logical, organized, respectful, and thorough manner, giving attention to the patient's general appearance, vital signs, and pertinent body regions.

- C. Attitudes and professional behaviors: Students should be able to:
 - 4. Demonstrate consideration for the patient's feelings, limitations, and cultural and social background at all times, more so whenever taking a history and performing a physical exam.

<u>PC-5</u> (readiness to collect and analyze patient's complaints and medical history, examination results, laboratory, instrumental, forensic and other data to understand the patient's condition or recognize the presence or absence of disease)

(1) History-taking and physical examination

Rationale: The ability to obtain an accurate medical history and carefully perform a physical examination is fundamental to providing care to adult patients. In particular, an internal medicine provider must be thorough and efficient in obtaining a history and performing a physical examination in a wide variety of adult patients. This includes healthy adults, adults with acute and chronic medical problems, adults with complex life-threatening diseases, and adults from diverse socioeconomic and cultural backgrounds.

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 5. The significant attributes of a symptom, including: location and radiation, intensity, quality, temporal sequence (onset, duration, frequency), alleviating, precipitating and aggravating factors, setting, associated symptoms, functional impairment, and patient's interpretation of symptom.
 - 6. The four methods of physical examination (inspection, auscultation, palpation, and percussion), including where and when to use them, their purposes, and the findings each can elicit.
 - 7. The physiologic mechanisms that explain key findings in the history and physical exam.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 6. Eliciting the patient's chief complaint as well as a complete list of the patient's concerns.
 - 7. Obtaining a patient's history in a logical, organized, and thorough manner, covering the history of present illness; past medical history; preventive health measures; social, family, and occupational history; and review of systems.
 - 8. Demonstrating proper hygienic practices whenever examining a patient.
 - 9. Performing a physical examination in a logical, organized, respectful, and thorough manner, giving attention to the patient's general appearance, vital signs, and pertinent body regions.
- C. Attitudes and professional behaviors: Students should be able to:
 - 5. Recognize the essential contribution of a pertinent history and physical examination to patient care.
 - 6. Establish a habit of updating historical information and reevaluating pertinent important parts of the physical examination during follow-up visits.
 - 7. Demonstrate consideration for the patient's feelings, limitations, and cultural and social background at all times, more so whenever taking a history and performing a physical exam.

(2) <u>Interpretation of clinical information</u>

Rationale: In the routine course of clinical practice, most physicians are required to order and interpret a wide variety of diagnostic tests and procedures. Determining how these test results will influence clinical decision making and communicating this information to patients in a timely and effective manner are core clinical skills that the last-year medical students should possess.

Specific learning objectives:

- A. Knowledge: Students should be able to:
 - 5. Interpret specific diagnostic tests and procedures that are ordered to evaluate patients who present with common symptoms and diagnoses encountered in the practice of internal medicine.
 - 6. Take into account the important differential diagnostic considerations, including potential diagnostic emergencies.
 - 7. Define and describe for the tests and procedures listed:
 - a. Indications for testing.
 - b. Critical values that require immediate attention.
 - 8. Independently interpret the results of the following laboratory tests:
 - a. CBC with diff and blood smear, UA, electrolytes, BUN/Cr, glucose, liver enzymes, viral hepatitis serologies, cardiac biomarkers (e.g. CK-MB, troponin), PT/INR, PTT, thyroid function tests, arterial blood gases, pulmonary function tests.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 4. Interpreting a blood smear, Gram stain, and chest X-ray
 - 5. Approaching ECG interpretation in a systematic and logical fashion analyzing the following: rate, rhythm, P wave morphology, PR interval, QRS width, axis, voltage, QT interval, ST segment morphology, and T wave morphology.
 - 6. Recording the results of laboratory tests in an organized manner, using flow sheets when appropriate.
- C. Attitudes and professional behaviors: Students should be able to:
 - 3. Appreciate the importance of follow-up on all diagnostic tests and procedures and timely communication of information to patients and appropriate team members.
 - 4. Personally review medical imaging studies, ECGs, Gram stains, blood smears, etc. to assess the accuracy and significance of the results.

(3) Case presentation skills

Rationale: Communicating patient care information to colleagues and other health care professionals is an essential skill regardless of specialty. Students should develop facility with different types of case presentations: written and oral, new patient and follow-up, inpatient and outpatient.

- A. Knowledge: Students should be able to define, describe, and discuss components of comprehensive and abbreviated case presentations (oral and written) and settings appropriate for each.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 3. Prepare legible, comprehensive, and focused new or follow-up patient reports

that include the following features as clinically appropriate:

- a. Concise history of the present illness organized chronologically with minimal repetition, omission, or extraneous information, and including pertinent positives and negatives.
- b. A comprehensive physical examination with detail pertinent to the patient's problem.
- c. A succinct, prioritized, and, where appropriate, complete list of all problems identified by the history and physical examination.
- d. A differential diagnosis for each problem (appropriate for the student's level of training).
- e. A diagnostic and treatment plan for each problem (appropriate for the student's level of training).
- 4. Orally present a new or follow-up inpatient's or outpatient's case in a logical manner, chronologically developing the present illness, summarizing the pertinent positive and negative findings as well as the differential diagnosis and plans for further testing and treatment.
- C. Attitudes and professional behaviors: Students should be able to:
 - 3. Demonstrate ongoing commitment to improving case presentation skills by regularly seeking feedback on presentations.
 - 4. Accurately and objectively record and present all data.

<u>PC-6</u> (ability to recognize patient's major pathological conditions, symptoms, syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th revision)

Diagnostic decision-making

Rationale: Physicians are responsible for directing and conducting the diagnostic evaluation of a broad range of patients, including patients seeking advice on prevention of and screening for disease and patients with acute and chronic illnesses. In a time of rapidly proliferating tests, medical students must learn how to design safe, expeditious, and cost-effective diagnostic evaluations. This requires diagnostic decision-making skills that incorporate probability-based thinking.

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 4. Key history and physical examination findings pertinent to the differential diagnosis.
 - 5. Information resources for determining diagnostic options for patients with common and uncommon medical problems.
 - 6. How critical pathways or practice guidelines can be used to guide diagnostic test ordering.
- B. Skills: Students should demonstrate specific skills, including:
 - 5. Identifying problems with which a patient presents, appropriately synthesizing these into logical clinical syndromes.
 - 6. Identifying which problems are of highest priority.
 - 7. Formulating a differential diagnosis based on the findings from the history and physical examination.

- 8. Using the differential diagnosis to help guide diagnostic test ordering and sequencing.
- C. Attitudes and professional behaviors: Students should be able to:
 - 3. Seek feedback regularly regarding diagnostic decision-making and respond appropriately.
 - 4. Recognize the importance of and demonstrate a commitment to the utilization of other health care professionals in diagnostic decision making.

<u>PC-10</u> (readiness to provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do *not* involve a threat to patient's life and do *not* require emergency medical care)

Therapeutic decision-makingfor sudden acute diseases

Rationale: Internists are responsible for directing and coordinating the therapeutic management of patients with a wide variety of problems, including the patients with acute diseases. To manage such patients effectively, physicians need basic therapeutic decision-making skills that incorporate both pathophysiologic reasoning and evidence-based knowledge.

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 7. Information resources for determining medical and surgical treatment options for patients with common and uncommon medical problems.
 - 8. How to use critical pathways and clinical practice guidelines to help guide therapeutic decision making.
 - 9. Factors that frequently alter the effects of medications, including drug interactions and compliance problems.
 - 10. Factors to consider in selecting a medication from within a class of medications.
 - 11. Factors to consider in monitoring a patient's response to treatment, including potential adverse effects.
 - 12. Methods of monitoring therapy and how to communicate them in both written and oral form.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 6. Formulating an initial therapeutic plan.
 - 7. Accessing and utilizing, when appropriate, information resources to help develop an appropriate and timely therapeutic plan.
 - 8. Writing prescriptions and inpatient orders safely and accurately.
 - 9. Counseling patients about how to take their medications and what to expect when doing so, including beneficial outcomes and potential adverse effects.
 - 10. Monitoring response to therapy.
- C. Attitudes and professional behaviors: Students should be able to:
 - 4. Involve the patient in the decision-making process, explaining the risks and benefits of treatment.
 - 5. Respect patient's informed choices, including the right to refuse treatment.
 - 6. Recognize the importance of and demonstrate a commitment to the utilization of other healthcare professionals in therapeutic decision making.

<u>PC-11</u> (readiness to participate in providing *emergency medical care* for conditions requiring immediate medical intervention)

Proficiency in the <u>assessment and initial management of acutely ill patients</u> who are less critically ill or injured but present as emergencies.

- A. Knowledge: Students should be able to define, describe, and discuss:
 - 6. Initial care of the critically ill and injured patient.
 - 7. Assessment and management of all common medical emergencies, including:
 - a. Collapse including cardiac failure, hypovolemia, hemorrhage, anaphylaxis, metabolic crises, overwhelming sepsis, hypothermia, electrolyte disturbances.
 - b. Acute dyspnea, respiratory failure, pneumothorax.
 - c. Psychiatric presentations to the Emergency department: Management of poisoning and self-harm, alcohol related problems, substance misuse, delirium, disturbed or violent behaviour, interaction with acute psychiatric services.
 - d. Acute cardiac emergencies: acute coronary syndrome, arrtythmias, assessment of chest pains.
 - e. Acute neurological emergencies, including acute stroke, TIA, seizure disorders, meningitis, traumatic brain injury.
 - f. Acute rheumatological conditions.
 - g. Assessment of elderly patients with complex presentations and multiple pathology. Appropriate discharge planning.
 - 8. Knowledge of how to obtain more detailed information about common emergencies and how to obtain help in the case of more unusual presentations.
 - 9. The special problems encountered at the scene of an incident and during transfer should be appreciated and the general principles of pre-hospital care understood.
 - 10. Knowledge of a hospital process during a major incident.
- B. Skills: Students should be able to demonstrate specific skills, including:
 - 7. Recognise emergency.
 - 8. Determine rapidly the clinical context and sequence of events leading to the emergency.
 - 9. Conductfocussed clinical examination.
 - 10. Establishe a provisional diagnosis, plans and arrange appropriate initial investigations, determine severity of organ dysfunctions.
 - 11.Initiate appropriate emergency management, including summoning help, and urgent referral to other services.
 - 12. Monitor patient's condition appropriately and recognise and act on complications.
- C. Attitudes and professional behaviors: Students should be able to:
 - 4. Exhibit calm and methodical approach to assessing critically ill patient.

- 5. Adopt leadership role where appropriate
- 6. Involve senior and specialist (e.g. critical care outreach) services promptly

4. Volume of the course (module) and types of the academic classes:

Total workload of the course is **5**credits.

| | Type of the academic work | Total hours | Term |
|--------------|----------------------------------|-------------|------|
| Discipline | | | |
| workload | Lectures (L) | 24 | 9,10 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinicalpracticals(CP) | 55 | 9,10 |
| | Laboratory-based practicals | | |
| | (LBP) | | |
| | Simulation-based practicals(SBP) | | |
| | Preparation for the examination | 33,7 | 10 |
| | (PE) | | |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 10 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 65 | 9,10 |
| | Examination control (EC) | 0,3 | 10 |
| | Total course workload | 180 | 9,10 |
| | | | |

5. Contents of the course:

5.1. Contents of the sections of the course

| No. | Name of the course section | Contents of the section |
|-----|--|---|
| 1 | Organization of anti-TB measures | The Global Strategy to Eliminate Tuberculosis and its practical implementation in the countries of the European Region. World Health Organization Global Report on the Burden of Tuberculosis and Implementation of Priority Tuberculosis Measures in Various Countries. Initiatives of international organizations / associations aimed at reducing the prevalence of tuberculosis. Federal clinical guidelines for the provision of TB care: identification, diagnosis, treatment, prevention. Modern tuberculosis monitoring system: monitoring the incidence, prevalence of drug resistance of mycobacteria, mortality, the prevalence of co- |
| | | infection with tuberculosis and HIV, the effectiveness of the main anti-tuberculosis measures |
| 2 | Epidemiological basis for tuberculosis control | Etiological epidemiology of tuberculosis. The main characteristics and properties of the causative agent of tuberculosis. Routes of transmission of Mycobacterium tuberculosis. Risk factors for Mycobacterium tuberculosis infection. Risk factors for tuberculosis. Key indicators of |

| | | the tuberculosis epidemic. |
|---|---|---|
| 3 | Laboratory research methods for tuberculosis | Goals, objectives and basic principles of the organization of the laboratory service to identify the causative agent of tuberculosis. A bacterioscopic method for identifying acid-resistant mycobacteria: indications for the study, rules for collecting and transporting diagnostic material, conducting and interpreting the results. Cultural study of tuberculosis: indications for the study, methods, interpretation of the results. Molecular genetic methods for the diagnosis of tuberculosis: indications for the study, methods and interpretation of the results. Molecular epidemiology of tuberculosis: goals, methods and interpretation of results. Algorithm for laboratorydiagnosisoftuberculosis |
| 4 | Radiation detection methods for active tuberculosis | X-ray screening for the detection of active respiratory tuberculosis. Modern radiation methods for the study of respiratory and mediastinal organs. |
| 5 | Methods of immunological diagnosis of latent tuberculosis infection | Tuberculosis immunity. Tuberculin diagnostics: goals, objectives, organization and interpretation of the results of mass and individual formulation of tuberculin tests. Diaskin test: goals, objectives, organization and interpretation of the results. Methods of immunological diagnosis based on the isolation of gamma interferon by sensitized T-lymphocytes: goals, objectives, organization and interpretation of the results |
| 6 | Specifictuberculosisprevention | Immunological prophylaxis of tuberculosis: indications, contraindications, organization of carrying out, evaluation of effectiveness, complications of tuberculosis vaccination and revaccination. Treatment of latent tuberculosis infection: the formation of a high-risk group for tuberculosis, indications for the appointment of preventive treatment, organization of the conduct and evaluation of effectiveness |
| 7 | Tuberculosisanti- epidemicmeasures | Organization of anti-epidemic measures in the foci of tuberculosis infection. Organization of anti-epidemic measures (infection control measures) of tuberculosis in medical organizations, including a TB profile: administrative, technical and individual levels |
| 8 | Clinicalformsoftuberculosis | Primary and secondary tuberculosis. Features of pathogenesis, clinical and radiological semiotics and diagnostic methods for various clinical forms of pulmonary tuberculosis and extrapulmonary localization. Differential diagnosis of tuberculosis and other diseases. Emergency conditions in the practice of a TB doctor: hemoptysis / pulmonary hemorrhage / spontaneous pneumothorax |
| 9 | Tuberculosistreatment | The clinical significance of drug resistance of tuberculosis mycobacteria. The basic principles of organizing the treatment of patients with tuberculosis caused by mycobacteria with different spectra of drug sensitivity / resistance. Classification of anti-TB drugs. New drugs for the treatment of tuberculosis. Adverse reactions to anti-TB drugs. Pharmacological surveillance of anti-TB drugs. Patient-orientedapproachto TB care. |

| Ī | 10 | Tuberculosisand HIV infection | HIV infection at the present stage. Features of the course |
|---|----|-------------------------------|--|
| | | | and diagnosis of tuberculosis in HIV-infected individuals. |
| | | | Screening for tuberculosis of HIV-infected persons. HIV |
| | | | screening for tuberculosis patients Organization of |
| | | | treatment for tuberculosis and HIV infection in patients |
| | | | with co-infection |

5.2. Sections and types of studies

| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|-----|----------------------------|----|---|---|----|-----|-----|----|----------------|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | 24 | | | 70 | | | 86 | |

| № | The name of the course | L | S | P | CP | LBP | SBP | UW | Totalhours |
|------|---|----|---|---|----|-----|-----|----|------------|
| | section | | | | | | | | |
| 1 | Organization of anti-TB | 4 | | | 5 | | | 15 | 14 |
| | measures | | | | | | | | |
| 2 | Epidemiological basis for | 2 | | | 5 | | | 8 | 12 |
| | tuberculosis control | | | | | | | | |
| 3 | Laboratory research methods | 2 | | | 5 | | | 8 | 12 |
| | for tuberculosis | | | | | | | | |
| 4 | Radiation detection methods | 2 | | | 5 | | | 8 | 12 |
| | for active tuberculosis | | | | | | | | |
| 5 | Methods of immunological | 2 | | | 5 | | | 8 | 12 |
| | diagnosis of latent tuberculosis | | | | | | | | |
| | infection | | | | | | | | |
| 6 | Specifictuberculosisprevention | 2 | | | 5 | | | 8 | 12 |
| | 1 | | | | | | | | |
| 7 | Tuberculosisanti- | 2 | | | 10 | | | 8 | 17 |
| | epidemicmeasures | | | | | | | | |
| 8 | Clinicalformsoftuberculosis | 2 | | | 15 | | | | 17 |
| 9 | Tuberculosistreatment | 4 | | | 10 | | | 15 | 24 |
| 10 | Tuberculosisand HIV infection | 2 | | | 5 | | | 8 | 12 |
| | _ = 5.5 = 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 | _ | | | | | | | _ _ |
| Tota | al | 24 | | | 70 | | | 86 | 180 |
| | | | | | | | | | |

6. Interactive forms of studies

| № п/п | The name of the course section | Interactive forms of education | Duration (hours) |
|----------|--------------------------------|-----------------------------------|------------------|
| 1. | Clinical forms of pulmonary | practical discussion, analysis of | 5 hours |
| | tuberculosis | typical situational tasks | |
| 2. | Laboratory methods of | practical discussion, analysis of | 5 hours |
| | tuberculosis diagnostics | typical situational tasks | |

| 3 | Methods of immunological | practical discussion, analysis of | 5 hours | | |
|---|---------------------------|-----------------------------------|---------|--|--|
| | diagnostics of latent | typical situational tasks | | | |
| | tuberculosis infection | | | | |
| 4 | Treatment of tuberculosis | practical discussion, analysis of | 5 hours | | |
| | | typical situational tasks | | | |
| 5 | Tuberculosisanti- | practical discussion, analysis of | 5 hours | | |
| | epidemicmeasures | typical situational tasks | | | |
| | | Total (hours) | 25hours | | |
| | | | | | |
| | | Total (% of classes) | 26 % | | |
| | | | | | |

$7.\ List of teaching\ materials\ for the course\ unsupervised\ work of students\ (including\ the\ use\ of\ e\ -\ learning\ opportunities,\ distance\ learning\ technologies\ (Moodle))$

| No. | Name of the course section | Types of the unsupervised work | Formsofcontrol |
|-----|---|--|--|
| 1. | Organization of anti-TB measures | Small Group Work: A Review of Scientific Publications (optional assignments) preparation of a presentation on given topics, essay writing on given topics; compiling an annotated list of scientific publications over the past 5 years | Presentation of the report in a practical lesson, participation in the discussion EssayEvaluation |
| 2. | Epidemiological basis for tuberculosis control | Small Group Work: A Review of Scientific Publications (optional assignments) • preparation of a presentation on given topics, • essay writing on given topics; • compiling an annotated list of scientific publications over the past 5 years | Presentation of the report in a practical lesson, participation in the discussion EssayEvaluation |
| 3. | Laboratory research methods for tuberculosis | Small Group Work: A Review of Scientific Publications (optional assignments) • preparation of a presentation on given topics, • essay writing on given topics; • compiling an annotated list of scientific publications over the past 5 years | Presentation of the report in a practical lesson, participation in the discussion EssayEvaluation |
| 4. | Radiation detection methods for active tuberculosis | Small Group Work: A Review of Scientific Publications (optional assignments) | Presentation of the report in a practical lesson, participation |

| | | | in the discussion |
|----|--|---|---|
| | | • preparation of a presentation on | in the discussion |
| | | given topics, | EssayEvaluation |
| | | • essay writing on given topics; | |
| | | · compiling an annotated list of | |
| | | scientific publications over the past | |
| | Mathada of immunalacias | 5 years Small Crown Works A Position of | Presentation of the |
| 5. | Methods of immunological diagnosis of latent tuberculosis | Small Group Work: A Review of Scientific Publications | report in a practical |
| | infection | (optional assignments) | lesson, participation |
| | | · preparation of a presentation on | in the discussion |
| | | given topics, | EssayEvaluation |
| | | · essay writing on given topics; | Lissay Evaluation |
| | | · compiling an annotated list of | |
| | | scientific publications over the past | |
| | | 5 years | |
| 6. | Specifictuberculosisprevention | Small Group Work: A Review of | |
| | | Scientific Publications (optional assignments) | report in a practical lesson, participation |
| | | • preparation of a presentation on | in the discussion |
| | | given topics, | |
| | | • essay writing on given topics; | EssayEvaluation |
| | | · compiling an annotated list of | |
| | | scientific publications over the past | |
| | | 5 years | |
| 7. | Tuberculosisanti- | Small Group Work: A Review of | Presentation of the |
| | epidemicmeasures | Scientific Publications | report in a practical |
| | | (optional assignments) | lesson, participation in the discussion |
| | | • preparation of a presentation on | in the diseasion |
| | | given topics, | EssayEvaluation |
| | | • essay writing on given topics; | |
| | | compiling an annotated list of | |
| | | scientific publications over the past 5 years | |
| 8. | Tuberculosistreatment | Small Group Work: A Review of | Presentation of the |
| | | Scientific Publications | report in a practical |
| | | (optional assignments) | lesson, participation |
| | | • preparation of a presentation on | in the discussion |
| | | given topics, | EssayEvaluation |
| | | · essay writing on given topics; | |
| | | · compiling an annotated list of | |
| | | scientific publications over the past | |
| 9. | Tuberculosisand HIV infection | 5 years Small Group Work: A Review of | Presentation of the |
| 7. | Tuberculosisanu filv intection | <u> </u> | |
| ·· | Tuo et allo et | Scientific Publications | report in a practical |

| , 1 | lesson, participation |
|---------------------------------------|-----------------------|
| · preparation of a presentation on | in the discussion |
| given topics, | EssayEvaluation |
| · essay writing on given topics; | LisayLvardation |
| · compiling an annotated list of | |
| scientific publications over the past | |
| 5 years | |

8. Forms of control

- 8.1. Current forms of control
- oral: interview, participation in a discussion with an interactive form of conducting a lesson, report (presentation) at a practical lesson, analysis of clinical cases
- · written: performing test tasks, solving situational tasks, writing an essay.

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Evaluation tools'.

- 8.2. Forms of the interim assessment (**exam**) Stages of the interim assessment
- solving a typical situational problem
- a written answer to the control questions for the exam

Questions for an examination, a theme list of test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Set of the evaluation tools for the current control and interim assessment of students'.

9. Library and information materials of the course

- **9.1.** Compulsory literature
 - 1. Koshechkin V.A. Phthisiatry [Электронныйресурс]/ V. A. Koshechkin. -М.: ГЭОТАР-Медиа, 2017. -256 р. URL: http://www.studentlibrary.ru/book/ISBN9785970439739.html.
 - 2. Steffers G. General Pathology and Internal Medicine for Physical Therapists [Электронныйресурс]: учебник/ G. Steffers, S. Credner. -1st ed.: Thieme, 2012 URL: https://medone-education.thieme.com/ebooks/2093236?fromSearch=true#/ebook_2093236_SL8047553
 - 3. N. A. Halen and D. Enarson. Tuberculosis. Manual for students. WHO, Union TB 2009 http://www.theunion.org/what-we-do/publications/technical/english/pub_tb_manual_for_medical_students_eng.pdf
 - 4. H. L. Rieder, C-Y. Chiang, R. P. Gie, D. A. EnarsonClinical Tuberculosis. 2009 http://www.theunion.org/what-we-do/publications/technical/clinical-tuberculosis

- 5. J. A. Caminero A Tuberculosis Guide for Specialist Physicians. First edition. Union TB. 2003 http://www.theunion.org/what-we-do/publications/technical/a-tuberculosis-guide-for-specialist-physicians
- 6. Koshechkin V.A. Phthisiatry [Электронныйресурс]/ V. A. Koshechkin. -М.: ГЭОТАР-Медиа, 2019. -256 p.- URL:

https://www.studentlibrary.ru/ru/book/ISBN9785970453025.html

- 7. Перельман М.И. Фтизиатрия [Электронный ресурс]: учеб. для студентов вузов/ М. И. Перельман, И. В. Богадельникова. -Москва: ГЭОТАР-Медиа, 2015. -446 с.- URL: http://www.studentlibrary.ru/book/ISBN9785970433188.html
- 8. Фтизиатрия [Электронный ресурс] : учебник/ В. Ю. Мишин [и др.]. -2-е изд., перераб. и доп.. -Москва: ГЭОТАР-Медиа, 2016. -520 с.- URL: http://www.studmedlib.ru/book/ISBN9785970436684.html

9.2 Supplementaryliterature

- 1. Implementing the end TB strategy: the essentials. WHO. 2016 http://www.who.int/tb/publications/2015/The_Essentials_to_End_TB/en/
- 2. On the road to ending TB: Highlights from the 30 highest TB burden countries. WHO. 2016 http://www.who.int/tb/publications/WorldTBDay2016_brochure/en/
- 3. The use of molecular line probe assays for the detection of resistance to second-line anti-tuberculosis drugs. Policy guidance. WHO. 2016 http://www.who.int/tb/publications/policy-guidance-molecular-line/en/
- 4. Integrating collaborative TB and HIV services within a comprehensive package of care for people who inject drugs. Consolidated guidelines. WHO. 2016 http://www.who.int/tb/publications/integrating-collaborative-tb-and-hiv_services_for_pwid/en/
- 5. The use of lateral flow urine lipoarabinomannan assay (LF-LAM) for the diagnosis and screening of active tuberculosis in people living with HIV
- 6. Policy update. WHO. 2016 http://www.who.int/tb/publications/use-of-lf-lam-tb-hiv/en/
- 7. Global tuberculosis report 2015http://www.who.int/tb/publications/global_report/en/
- 8. Systematicscreening for active tuberculosis: an operational guide. WHO.2015http://www.who.int/tb/publications/systematic_screening/en/
- 9. Recommendation on 36 months isoniazid preventive therapy to adults and adolescents living with HIV in resource-constrained and high TB and HIV-prevalence settings: 2015 update WHO.
 - 2015http://www.who.int/tb/challenges/hiv/2015_ipt_update/en/
- 10.Guidelines on the management of latent tuberculosis infection. WHO 2015 http://www.who.int/tb/publications/latent-tuberculosis-infection/en/
- 11. Companion handbook to the WHO guidelines for the programmatic management of drug-resistant tuberculosis. WHO.

- 2014http://www.who.int/tb/publications/pmdt_companionhandbook/en/
- 12.Laboratory Diagnosis of Tuberculosis by Sputum Microscopy UNION TB 2013 http://www.theunion.org/what-we-do/publications/technical/english/The-Handbook_lo-res_130930.pdf
- **13.**Desk-guide for diagnosis and management of tb in children. Union TB. 2014 http://www.theunion.org/francais/nos-activites/publications/publications-techniques/english/2015_Desk-guide-for-diagnosis-and-management-of-TB-in-children_2ndEd.pdf
- 14. Management of Tuberculosis. A Guide to the Essentials of Good Practice. Sixth Edition 2010 Union TB. http://www.theunion.org/what-we-do/publications/technical/english/pub orange-guide eng.pdf
- 15. Diagnostic Atlas of Intrathoracic Tuberculosis in Children: A guide for low-income countries Union TB 2003 http://www.theunion.org/what-we-do/publications/technical/diagnostic-atlas-of-intrathoracic-tuberculosis-in-children-a-guide-for-low-income-countries
- 16. Зимина В.Н. Туберкулез и ВИЧ-инфекция у взрослых [Электронный ресурс] : Руководство/ В. Н. Зимина, В. А. Кошечкин, А. В. Кравченко. -Москва: ГЭОТАР-Медиа, 2014. -224 с.- URL: http://www.studentlibrary.ru/book/ISBN9785970427460.html
- 17. **Фтизиатрия** [Электронный ресурс] : учебник/ В. Ю. Мишин [и др.]. -2-е изд., перераб. и доп.. -Москва: ГЭОТАР-Медиа, 2016. -520 с.- URL: http://www.studmedlib.ru/book/ISBN9785970436684.html
- **9.3.** Listofthe Internet resources required for mastering of the course (module)*
 - 1. www.roftb.ru-The official website of the Russian Society of Phthisiatricians federal clinical recommendations on phthisiology, news, official documents and their projects
 - 2. http://ftiza.su/video-o-tuberkuleze Internet resource "Phthisiatrician's notepad"
 - 3. http://www.euro.who.int/observatory;
 - 4. http://www.who.int;
 - 5. http://theunion.org
 - 6. http://www.tbpolicy.ru
 - 7. http://www.stoptb.org

Electronic library systems

| № | Name of ELS | Site address |
|---|---|----------------------------|
| 1 | Student Advisor. Electronic medical library | http://www.rosmedlib.ru/ |
| 2 | ElectronicLibrarySystemIPRbooks | http://www.iprbookshop.ru/ |

Electronic versions of periodicals

| I | 1 | Scientific electronic library eLibrary.ru | http://www.elibrary.ru/defaultx.asp |
|---|----|--|-------------------------------------|
| | 1. | Belefithie electronic northly ellionary.ru | nttp://www.cnorary.ra/acraartx.asp |

International Databases

| 1. ScopusDatabase http://www.scopus.com/ |
|--|
|--|

| 2. | SAGE PUBLICATIONS Electronic v | www.sagepub.com | |
|----|---|--|--|
| | Magazine Archive | | |
| 3. | IOP Publishing Electronic Journal Archive 1 | http://iopscience.iop.org/jornals?type=a | |
| | 1 | rchive | |
| 4. | OXFORD UNIVERSITY PRESSElectronic v | www.oxfordjournals.org/ | |
| | Journal Archive | | |
| 5. | SCIENCE издательства AAAS Electronic v | www.sciencemag.org. | |
| | Journal Archive | | |
| 6. | ROYAL SOCIETY OF V | www.rsc.org/ | |
| | CHEMISTRYElectronic Journal Archive | | |

Universityelectroniclibrary

| 1 | electroniclibrary of NSMU | http://lib.nsmu.ru/lib/ |
|---|---------------------------|-------------------------|
| | | |

9.4. The list of information technologies used to implement the educational process in the course (module), including a list of software and information reference systems

Supplemental legal system

| 1 | Supplemental | legal | system | In the local network of the |
|---|----------------|-------|--------|------------------------------|
| | «КонсультантП. | люс» | | university, in the library's |
| | - | | | electronic information hall |

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. The material and technical base necessary for the educational process

| Наименование помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом, в том числе помещения для самостоятельной работы, с указанием перечня основного оборудования, учебно-наглядных пособий | Адрес (местоположение) помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом (в случае реализации ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России программы в |
|---|--|
| и используемого программного обеспечения | сетевой форме дополнительно указывается наименование организации, с которой заключен договор) |
| Учебная аудитория для проведения занятий лекционного типа № 2102 имени Н.П.Бычихина административный учебный корпус, 1 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 300 мест. б) наборы демонстрационного оборудования проектор, моноблок, экран, колонки в) перечень учебно-наглядных пособий: схемы, таблицы г) используемое программное обеспечение: Казрегsky endpoint Security. Номерлицензии 26FE-191125-134819-1-8403. | 163000, г. Архангельск, просп. Троицкий, д. 51 |

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номерлицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793 Traffic inspector. Лицензионное соглашение №105108 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163002, Архангельская область, г. групповых и индивидуальных консультаций, Архангельск, пр. Новгородский, д. 28 текущего контроля и промежуточной аттестации № 70, 1 этаж Договор № 220 от 20.03.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава ГБУЗ Архангельской области «Архангельский клинический противотуберкулезный диспансер». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, рентгенографический негатоскопы, аппарат цифровой АРГЦРП (Програф), рентгеновский аппарат КРТ «Электрон», флюорографический аппарат «Ренекс-флюоро», рентгенографический цифровой аппарат «Duodiagnostic», ультразвуковой аппарат «Aloka3500SSD», микроскоп «Лейка DM» г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номерлицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163002, Архангельская область, г. групповых и индивидуальных консультаций, Архангельск, пр. Новгородский, д. 28 текущего контроля и промежуточной аттестации № 72, 1 этаж Договор № 220 от 20.03.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава ГБУЗ Архангельской области России «Архангельский клинический противотуберкулезный диспансер». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования

ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, гематологический анализатор для подсчета форменных элементов крови, АВХ Містоѕ 60, анализатор биохимический «Hymalazer 3000», анализатор биохимический «Cormaymulti», амплификатор для идентификации возбудителей инфекционных заболеваний методом ПЦР, анализатор бактериологический для идентификации микроорганизмов определения И чувствительности к антибактериальным препаратам ВАСТЕС-960, программируемые биохимические фотометры с проточной и сменной кюветами, АБхФк-02 «БиАн», многокомпонентные отражательные фотометры для анализа мочи, оверхед-проектор MEDIUM

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номерлицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации N_2 60, 3 этаж

Договор № 220 от 20.03.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельский клинический противотуберкулезный диспансер». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп, аппарат рентгенографический цифровой АРГЦРП (Програф), рентгеновский аппарат КРТ «Электрон», флюорографический аппарат «Ренекс-флюоро

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номерлицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

163002, Архангельская область, г. Архангельск, пр. Новгородский, д. 28

Учебная аудитория для занятий семинарного типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 333 учебный корпус, 3 этаж

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

- б) наборы демонстрационного оборудования ноутбук, проектор
- в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, муляжи

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номерлицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно 163001, г. Архангельск, просп. Троицкий, д. 180

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUSOF THE DISCIPLINE

Discipline Outpatient Internal Medicine

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) V-VI/9-12

Form of the interim assessment **Examination**

DepartmentofOutpatient Internal Medicine and Nursing

Discipline workload 432 (academic hours)/12(credits)

Approved at the department meeting

Minutes No.

June 24th 2020

Head of the department

E.V. Serdechnaya

Authors and compilers:

Serdechnaya Elena Valerievna, Head of the Department of Outpatient Internal Medicine and Nursing, Professor of the Department of Outpatient Internal Medicine and Nursing, Doctor of Medical Sciences; Yurieva Svetlana Vladimirovna, Associate Professor of the Department of Outpatient Internal Medicine and Nursing, Candidate of Medical Sciences

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to teach students to develop skills of providing qualified medical care at the outpatient stage and the skills of providing emergency medical care at the pre-hospital stage. |
|-------------------------|--|
| Tasks of the discipline | to master basic principles of organizing medical and preventive care for the most part of the population in a polyclinic; to teach the peculiarities of the organization and principles of work of a physician; to acquaint students with modern diagnostic capabilities of the polyclinic service and to teach students to use them in a rational way; to develop skills of clinical thinking of the early diagnosis of the most common diseases in the polyclinic taking into account the peculiarities of their course, treatment, primary and secondary prevention, clinical examination, examination of working capacity; to train skills in working with standards and protocols for the treatment of internal diseases, with formularies of medicines, conducting an examination of temporary disability; to teach students to work with orders, special methodological instructions for the provision of emergency assistance to the population; to teach the issues of examination of temporary and permanent disabilities. |

2. Positionofthecourse (module) within the structure of the educational program

The program is developed following the requirements of Federal State Education Standard (FSES) for higher education in the field of 31.05.01«General medicine».Block 1. Basic part.

In accordance with the curriculum it is taught at the ninth - twelfth semester. To acquire knowledge of the discipline "Outpatient Therapy" students should master the following disciplines: medical ecology, normal physiology, hygiene; health economics; pharmacology; medical rehabilitation; neurology, medical genetics, psychiatry, medical psychology; basics of care for medical and surgical patients; PID, faculty therapy, occupational diseases; endocrinology; infectious diseases; intensive therapy; faculty surgery, urology.

${\bf 3. \ List \ of \ the \ planned \ learning \ outcomes \ of \ the \ course \ (module) \ in \ connection \ to \ the \ planned \ outcomes \ of \ the \ mastering \ of \ the \ educational \ program}$

| Codes of competence | Competences | | | |
|--|--|---|---|--|
| • | Knowledges | Skills | Abilities | |
| GPC - № | General professional competencies | | | |
| GPC – 6 To be ready to fill medical records | - to know the specifics of standard accounting and reporting medical documentation in outpatient clinics and ambulance. | - to be able to fill the medical documentation of district therapist (a medical file for an outpatient, a sick leave, an outpatient patients card, a sanatorium card, a health checkup card, etc.) and of ambulance doctor (ambulance call card, ambulance support card) | - have the skills of right registration and management of medical records in the outpatient clinic and in the ambulance. | |
| GPC - 8 Readiness for the medical use of drugs and other substances and their combinations for professional purposes | - to know the classification and basic characteristics of most often used drugs in outpatient practice and ambulanceto know pharmacodynamics and pharmacokinetics, indications, contraindications to the prescription of drugs - to know the possible complications of pharmacotherapy | -to be able to choose an individual type of care for the patient, be able to develop a plan of therapeutic actions taking into account the course of the disease and its treatment; - be able to apply proven practical recommendations when you choose therapeutic and prophylactic measures for the treatment of specific patients in outpatient clinic and ambulance. To be able to write prescriptions (standart prescriptions; subsidaze prescription; narcotic and equated to them drugs prescriptions) - evaluate the effectiveness and safety of the treatment. | - to possess the skills of using medicines in the treatment, rehabilitation and prevention of various diseases and pathological conditions - Possession of the skills of prescription forms registration to different categories of patients (preferential, free of charge, 20% payment, prescription for a drug containing narcotic and strong substances, prescription for receiving medicines with payment of 50% for participants of the Second World War, etc.). | |

| PC - № | P | rofessional competenci | es |
|--------------------------|--|---|------------------------------------|
| PC-1 - | - to know the role of | - to identify the | - to have the skills to |
| Be ready to | environmental and | natural and medico- | form positive medical |
| implement a set of | medico-social factors | social factors of the | behavior among the |
| measures that are | of the environment in | environment in the | population and their |
| aimed at preserving | the development of | development of | families, which is |
| and strengthening | diseases in the adult | diseases in the adult | aimed at preserving |
| people's health. These | population, to assess | population, carry out | and improving the |
| activities include | and correct them | their correction | level of public health |
| formation of a healthy | - to know preventive | - to implement | - to possess the skills |
| lifestyle, prevention | measures for | preventive measures | of introducing |
| the appearance of | infectious and | to prevent | elements of a healthy |
| illness or the spread of | noncommunicable | noncommunicable | lifestyle, including |
| diseases, early | diseases | diseases | the elimination of |
| diagnosis of diseases, | - to conduct | - to conduct health | bad habits |
| identifying the causes | educational work on | education work about | (explanatory |
| and conditions for | hygiene issues and to | hygiene and healthy | conversations, |
| their occurrence and | form a healthy | lifestylr issues | newsletters, visual |
| development. Be | lifestyle among the | - to make screening | agitation: sanlets, |
| ready to implement | population | for the early | memos) |
| activities that are | - to know the | detection and | - to possess the skills |
| aimed at eliminating | methods of early | diagnosis of the most | of screening the most |
| the harmful effects of | diagnosis of diseases | common and socially | common and socially |
| the environment on | | significant | significant |
| human health | | diseasesbasis (in | diseases(on the basis |
| | | "Health Centers") | of "Health Centers") |
| PC-2 | - to know the basics | - to conduct medical | - to possess the skills |
| To have the ability and | of preventive | examinations, to fill | of carrying out |
| readiness to conduct | medicine, organize | the primary and | activities for primary |
| preventive medical | preventive measures | current | and secondary |
| examinations, medical | aimed at improving | documentation, | prevention of the |
| regular check-ups and | the health of the | - to carry out | most common |
| dispensary | population. | preventive medical | diseases requiring |
| observation | - to know the | examinations, also to | therapeutic treatment |
| | principles of the | conduct preventive | with the population |
| | medical regular | measures with the | - to carry out general |
| | check-ups of the | population attached | health measures for |
| | population, the | to prevent the most | the formation healthy |
| | methods of | common diseases; | lifestyle, taking into |
| | preventive medical | - to carry out general | account age-sex |
| | examinations; | health measures for | groups and health |
| | - to carry out general | the formation of a | status, to give |
| | health measures for | healthy lifestyle, | recommendations on |
| | the formation of a | taking into account | healthy nutrition, on |
| | healthy lifestyle, | age-sex groups and | motor activity and |
| | taking into account | health status, | exercises; |
| | age-sex groups and | - to give | - to possess the skills |
| | health status, | recommendations on | of conducting |
| | - to know the | healthy nutrition, on | medical regular |
| | recommendations on | motor activity and | check-ups, know the |
| | healthy nutrition, on motor activity and | exercises, to evaluate the effectiveness of | timing, duration of follow-up, the |
| | motor activity and | and effectiveness of | Tonow-up, me |

| | exercises, to evaluate the effectiveness of dispensary observation of healthy and chronic patients | dispensary monitoring of healthy and chronic patients | characteristics of the measures, be able to evaluate the effectiveness of clinical examination according to the developed criteria, to fill control cards for dispensary observation of patients; - make programs for classes in schools for healthy and sick people (diabetes, hypertension, ischemic heart disease, etc.) and in prevention departments and conduct them |
|--|--|---|--|
| PC – 5 Be ready to collect and analyze patient complaints, his history, examination results, laboratory, instrumental, autopsy and other studies in order to recognize the condition or establish the fact of the presence or absence of disease | - to know the clinical aspects of general therapeutic diseases: epidemiology, etiology, pathogenesis, clinic, diagnostics to know the types of anamnesis To know the principles of collecting and analyzing the patient's complaints, data of his anamnesis to know the basic methods of laboratory, instrumental, pathoan atomical and other studies. | - to determine the status of the patient: collect anamnesis, interview the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation, blood pressure measurement, determination of the arterial pulse properties, etc.); - to determine the minimum required for diagnosis of laboratory and instrumental studies, informative for establishing a diagnosis; - to interpret the results of the most common methods of functional diagnostics used to detect the pathology of blood, heart and blood vessels, lungs, | - to know methods of general clinical examination (interwiev, examination, palpation, percussion, auscultation, determination of the properties of the arterial pulse, measurement of blood pressure) and to interpret the results - to know interpretation of the results of laboratory, instrumental diagnostic methods; |

| PC – 8 - to know the basic To have the ability to medical measures at To have the ability to measure the ability to the ability to measure the ability to the abili | |
|--|--|
|--|--|

| of managing patients | outpatient practice | | L diagnosis with the |
|--|---|--|--|
| with various nosological forms | diseases and conditions in the adult population, which can cause severe complications and (or) lethal case; - to know the possibilities to timely detection of lifethreatening conditions, to know the methods of their immediate elimination, to know the anti-shock measures | the necessity to provide him with medical care, | diagnosis with the subsequent referral of the patient to the appropriate doctor - to possess the algorithm of the expanded clinical diagnosis, the skills of organization care for heavy and untransportable patients, - to own tactics of check-ups and assistance, examination and treatment, tactics of patients management (treatment, primary and secondary prevention measures, restorative treatment) in the outpatient department |
| | | patients. | иерагинен |
| PC - 9 To be ready for management and treatment of patients with various nosological forms in outpatient and day hospital PC - 10 | - to know the scheme of treatment in accordance with the diagnosis in outpatient and day hospital, - to know the algorithm for choosing medicamentous and non-drug therapy for patients with infectious and non-infectious diseases, various age and social groups, co-and polymorbid pathology | - to give to patients adequate therapeutic treatment of outpatient and day hospital in accordance with the exposed diagnosis, - to carry out an algorithm for choosing medicamentous and non-drug therapy for patients with infectious and non-infectious diseases, various age and social groups with co-and polymorbid pathology | - to possess the skill of conducting treatment at the outpatient department to patients with various most common therapeutic and related pathologies, - to possess the skill of using the possibility of stationary substitution technologies while providing assistance to patients with therapeutic profile (indications and contra-indications for referral to the daytime hospital of a polyclinic, assistance in a "hospital at home") - to own the methods |

Be ready to provide medical care for sudden acute illnesses, conditions, exacerbation of chronic diseases that are not accompanied by a life threatening patient and do not require emergency medical care

ways of rendering the first medical population to the adult population in the event of emergency and lifethreatening conditions, in extreme conditions of epidemics, to hospitalize patients in a planned and emergency order

medical measures for the most common diseases and conditions that can cause serious complications and / or death (ischemic and hemorrhagic stroke, hypertension, IHD, asthma, COPD, diabetes, peptic ulcer. acute diffuse glomerulonephritis, anemia, acute allergosis) - to identify lifethreatening health problems: hemoptysis, pulmonary and gastrointestinal bleeding, spontaneous pneumothorax, acute respiratory failure, cardiac arrest, coma, shock timely - to conduct measures to stop pulmonary and gastrointestinal bleeding, acute respiratory and cardiovascular insufficiency; cardiopulmonary resuscitation (airway patency, ventilation by mouth-to-mouth ventilation, Ambu bag with mask, airway, indirect cardiac massage). - to determine the indications for the hospitalization of patients with a therapeutic profile and to realize hospitalization in an emergency and

planned manner;
- to ensure continuity

and skills of
providing medical
and emergency care
for the most common
diseases and
conditions in the
adult population at
the prehospital stage,
- to hospitalize
patients in planned
and urgent order

| PC – 11 Be ready to participate in emergency care to patients requiring urgent medical intervention | - to know the methods of carrying out emergency measures in conditions requiring urgent medical intervention - to know the algorithm of basic cardiopulmonary resuscitation, methods of artificial ventilation, the technique of indirect cardiac massage, electrical defibrillation; - to know the basics of providing various types of medical care to the affected population in an emergency situation | in the provision of treatment and examination at the out-inpatient stage. - to provide emergency assistance to the adult population in conditions requiring urgent medical intervention at the prehospital stage, - to conduct emergency hospitalization of patients | - to master the basic medical diagnostic and medical measures to provide emergency medical care for conditions requiring urgent medical intervention at the prehospital stage - to possess the methods of conducting complex cardiopulmonary and cerebral resuscitation, - to possess the technique of immediate elimination of lifethreatening disorders in trauma (acute blood loss, respiratory failure, cardiac arrest); |
|--|--|--|--|
| PC-15 Be ready to train patients and their relatives in the main hygiene measures of a recreational nature, the skills of self-monitoring of basic physiological indicators, contributing to the preservation and promotion of health and disease prevention | - to know the basic hygienic measures of a recreational nature, promoting health promotion and preventing the occurrence of diseases, - to know the ways of forming healthy lifestyle habits that help maintain their motor activity at the proper level, eliminate harmful habits | - to teach adult population and their relatives basic hygienic measures of a recreational nature that promote health promotion and disease prevention, form skills healthy lifestyle, maintain proper motor activity, eliminate bad habits | - to possess the skills of teaching patients and their relatives the basic hygienic measures of a recreational nature, - to possess the skills of self-monitoring of basic physiological indicators, contributin g to the preservation and promotion of health, disease prevention |
| PC-16 Be prepared for educational activities to eliminate risk factors and develop healthy lifestyle skills | - to know modern methods of sanitary educationwork in a outpatient department, to know the methods to combat bad habits, alcoholism, drug | - to conduct a short and in-depth preventive counseling of patients and their relatives, promotion of a healthy lifestyle. | - to possess the skills of carrying out preventive measures among patients of the therapeutic profile (familiarity of patients with the basics of rational |

| | addiction,to promote a healthy lifestyle. | | nutrition in various pathologies, with risk factors, rational and supportive therapy, the possibilities of drug and non-drug therapy); - to have the skills to implement activities for the formation of adult health (participation in schools for healthy and sick people, to prepare conversations on a healthy lifestyle with the use of innovations: radio lectures, multimedia presentations, disk-information) |
|--|--|---|---|
| PC- 18 Be ready to participate in the assessment of the quality of medical care using the basic medical and statistical indicators | - to know the indicators of assessing the quality of medical care using the basic medical and statistical indicators | - use the normative documentation adopted in health care (laws of the Russian Federation, international and national standards, orders, recommendations, terminology, effective international classifications), as well as documentation for assessing the quality and effectiveness of medical organizations | |
| PC – 20 To be prepared for analysis and public presentation of medical information on the basis of evidence-based medicine | - to know the principles of evidence-based medicine | - to evaluate the medical information about the patient; use A, B and C levels of evidence-based medicine; apply preventive, diagnostic and therapeutic measures based on the available evidence of their effectiveness | - to have the skills to study and analyze scientific literature and official statistical reviews, to write abstracts on contemporary problems of internal diseases and polyclinict herapy, to perform in the framework of |

| | and safety for use in | research work |
|--|-----------------------|---------------|
| | the interests of the | |
| | patient. | |

4. Volumeofthecourse(module) and types of the academic classes:

Total workload of the course is _12_ credits.

| | Type of the academic work | Total hours | Term |
|--------------|--------------------------------------|--------------------|------|
| Discipline | | | |
| workload | Lectures (L) | 66 | 9-12 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 135 | 9-12 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | 33,7 | 12 |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 12 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 195 | 9-12 |
| | Examination control (EC) | 0,3 | 12 |
| | Total course workload | 432 | 9-12 |
| | | | |

5. Contents of the course:

- 5.1. Contents of the sections of the course
- 5.1. Content of the discipline sections

The content of the discipline consists of the following sections:

- 1. Basics of organization of outpatient care and medical prevention:
- * Fundamentals of organization of outpatient care for the population.
- Medical prevention.
- * Assessment of the quality of medical care at the outpatient stage.
- 2. Emergency care at the pre-hospital stage:
- * Emergency conditions at the pre-hospital stage.
- * Emergency conditions in cardiology at the pre-hospital stage.
- * Emergency care in pulmonology at the pre-hospital stage.
- * Assistance in emergency conditions in gastroenterology at the pre-hospital stage.
- * Emergency care in urology and Nephrology at the pre-hospital stage.
- * Hyperthermic syndrome at the prehospital stage.
- * Emergency care for allergic reactions at the pre-hospital stage.
- Emergency treatment of coma in the prehospital setting.
- * Emergency care in neurology at the pre-hospital stage.
- 3. Internal diseases:
- * Diseases of the cardiovascular system in outpatient practice.
- * Diseases of the digestive system in outpatient practice.
- * Diseases of the urinary system in outpatient practice.
- * Blood diseases in outpatient practice.
- Disease of the respiratory system in ambulatory practice.
- * Joint diseases in outpatient practice.
- * Diseases of the endocrine system in outpatient practice.
- * Somatic diseases in outpatient practice in certain groups of the population.

The system of classes is cyclical. Cycl7-11 days (last day-undifferentiated test, at the end of 12 semester – exam).

| No | Name of the course section | Content of the section |
|----------|---|--|
| 1 | 2 | 3 |
| | nentals of outpatient care and medical pr | |
| 1 | Fundamentals of outpatient care to | Topic 1: Organization of outpatient |
| | the population. | medical care. |
| | | The structure of the outpatient clinic. |
| | | Organization of work its departments. |
| | | The main directions of the GP's work. |
| | | Organization of hospital substitute |
| | | types of assistance. Medical and |
| | | technological standards. |
| | | Topic 2: The functional |
| | | responsibilities of the doctor of |
| | | primary health care. The qualifying |
| | | characteristic specialty. |
| | | Tasks, duties, performance criteria of |
| | | the GP |
| | | Topic 3: The main legislative |
| | | instruments used in the medical |
| | | work of primary health care. |
| | | Documents regulating the provision of |
| | | medical and preventive care at the |
| | | outpatient stage. |
| | | Topic 4: The primary district |
| | | documentation Working with primary thereposition |
| | | Working with primary therapeutic |
| | | district documents: outpatient records, stat. ticket, referral notes for |
| | | examination and treatment |
| | | Topic 5: The basic principles of |
| | | providing medical outpatients. |
| | | Preferential provision of medicines. |
| | | The main legislative documents. |
| | | Principles of the medical settings work |
| | | in supplying the population with |
| | | pharmaceuticals. Groups and |
| | | categories of diseases giving right to |
| | | preferential support. The role of |
| | | pharmaceutical institutions in |
| | | providing the population with |
| | | medicines. Legal documents regulating |
| | | the work to issue preferential recipes. |
| <u> </u> | <u> </u> | |

| | | Topic 6: Features of care for older people, medical and social problems of the elderly contingent with the program adaptation. The main legislative documents governing the provision of medical care for the elderly contingent according to the territorial program of compulsory health insurance (OMS). Principles of the organization of additional preferential support (DLO) in hospitals. The main legislative documents regulating the work of gerontological service in Russia. The organization of medical and social assistance to the elderly contingent. Targeted medical-social assistance to the patient geriatric age. Making someone integrated program of medical and social adaptation of an old man. Topic 7: Assessment of quality of medical care at the outpatient stage. Working with the acts and outpatients records to assess the quality of care at the outpatient stage. Analysis of typical doctor/s mistakes to assist |
|----|--------------------|--|
| 2. | Medical prevention | outpatients and paperwork. Topic 1: The organization of preventive work in the outpatient clinic The concept of medical prevention. Implementation of preventive principles in hospitals. Types of prevention activities. UN Political Declaration on the Prevention and Control of NCDs (non-communicable diseases). The complex-valued global system for monitoring of non-communicable diseases in the Russian Federation (RF). Topic 2: Clinical examination of the population - the main method of disease prevention. |

Clinical examination of the working population. Examination of chronic patients on territorial basis Clinical examination of invalids and participants of the World War II (WWII) and the other decreed contingents Gent patients. Schemes of medical examination.

Topic 3: Organization of the "Center for Healthy Lifestyles" and prevention department.

The main risk factors of NCDs and their correction. healthy life style, the basics of good nutrition. Individual consultations.

Topic 4: Primary prevention of NCDs.

Effective prevention consultations of patients with chronic non-communicable diseases. Algorithm for individual counseling.

Topic 5: Epidemiology of socially significant diseases, risk factors and their correction. Immunization for adult population of Russia

Definition of social diseases. Diagnosis of tuberculosis. Categories of persons for mandatory testing for HIV, hepatitis B Early diagnosis of malignant tumors, diabetes mellitus. Immunization, vaccination schedule, contraindications for vaccination.

Topic 6: The role of health workers in the secondary prevention of disease.

Secondary of prevention cardiovascular diseases. Organization of school work for patients with hypertension and atrial fibrillation (school attendance. functionalfunctional responsibilities of nursing instructors, acquaintance with primary outpatient). Secondary documents prevention of diabetes. Organization of school work for people with diabetes

| | | (drawing up individual training programs). Secondary prevention of asthma. school Organization of work for patients with bronchial asthma (goals, objectives) Secondary prevention School organization works for patients undergoing cerebrovascular accident. |
|------|--|---|
| 3. | Fundamentals of | Topic 1: Organisation of temporary |
| | disabilityexpertise | disability examination. The organizational structure and procedure of the examination of temporary disability, structure, steps, documentation, average duration of temporary disability in mass therapeutic pathology. The average period of temporary disability Topic 2: Examination permanent disability. The concept of legislative documents and medical and social expertise. MSE structure. Examination of permanent disability, the provisions of MSEK, the criteria of disability, rehabilitation prognosis, disabled rehabilitation |
| 4. | Assessment of outpatient care quality | records, acts of expertise. Topic 1: Quality control of health care provision. Working with outpatients medical records, acts of expertise. |
| Emer | gency care at the prehospital stag | <u> </u> |
| 1. | Emergency care atthe prehospital stage | Topic 1. Emergency care atthe prehospital stage The concept of "state of emergency", the classification of emergency conditions. Organization of emergency care in the prehospital phase. Normative-legal acts regulating the activities of health workers in providing assistance in the prehospital phase. Topic 2. Legal regulation and the principles of emergency care at prehospital stage. |

he basic principles and the amount of medical care in the prehospital phase. Interaction with the operational department (control room) medical aid station (SMP). Indications to call specialized teams. Infectious safety. Rules of transportation of patients and **Topic** 3.Terminal survivors.Tema states. The concept of "terminal condition." Physiological parameters of vital body functions. The types and clinical manifestations of terminal states. **Topic 4. Sessation of the circulation** and respiration. Sessation of circulation: definition, risk factors. causes. symptoms, diagnosis. Respiratory arrest: definition, risk factors, causes, diagnosis. symptoms, Criteria for evaluation of the severity of the patient. Signs of clinical, biological death. **Topic** Universal algorithm 5. providing specialized resuscitation in case of emergency essence of algorithm the cardiopulmonary resuscitation (CPR). Recognition and treatment defibrillation (pulseless ventricular tachycardia, ventricular fibrillation) and nedefibrillyatsionnyh (asystole, pulseless electrical activity) rhythms. **Indications** methods and administering medication during sudden cardiac arrest. Restoration of the airway, mechanical ventilation (ALV), conducting supplemental compressions, oxygen, chest defibrillation, intubation. Criteria to stop resuscitation. Emergency conditions in Topic 1. Acute coronary syndrome 2. in prehospital phase. cardiology in the prehospital Current concepts of acute coronary Mr. phase. syndrome (ACS): definition, etiology, complications, differential diagnosis.

Features Survey prehospital: physical, biochemical-cal instrumental, (Express-study in acute in-infarction (troponin, myoglobin)). Tactics doctor in ACS without ST-segment elevation ST-segment elevation. and Medications for emergency care in the prehospital phase: methods application, selection of doses and complications of therapy. Specifics of transportation and monitoring of the patient's condition.

Topic 2. Acute heart failure before hospitalization.

cute heart failure: definition, etiology, diagno-stick. options differential Cardiogenic cardiogenic shock. pulmonary pulmonary edema, embolism. Features of physical and examination instrumental prehospital. The choice of tactics and algorithm of emergency assistance do6gospitalnom stage in acute heart failure. Medications for emergency care in the prehospital phase. Specifics of transportation and monitoring of the patient's condition.

Theme 3. Hypertensive crisis, algorithm of prehospital managing

Hypertensive crisis: causes, forms with modern amenities mennayaclassification, clinical manifestations and complications. Medications for emergency care in the prehospital phase: methods of application, selection of doses and complications of therapy. Algorithm for emergency care in the prehospital patients with uncomplicated complicated and hypertensive crisis. Indications for hospitalization. **Specifics** transportation and monitoring of the patient's condition.

Topic 4. Acute vascular insufficiency Syncope. Collapse. State of shock.

Definitions: faint, collapse, shock. The pathogenesis of syncope, collapse, shock states. The clinical picture. Differential diagnosis. The choice of tactics and algorithm of emergency care in the prehospital phase. Indications for mechanical ventilation.

Topic 5. Cardiac arrhythmias. Tachycardia with wide and narrow complexes QRS.

Cardiac arrhythmias: identification of risk factors, classification, clinical manifestations. Differential diagnosis of cardiac arrhythmias.

Tachycardia with wide and narrow complexes QRS: etiology, clinical features. diagnostic methods. Algorithm for emergency care in the prehospital phase. Cardioversion. Indications. performance technique. Equipment. Safety. Medications for emergency care in the prehospital phase: methods of application, selection of doses.

Topic 6. Ventricular fibrillation, ventricular tachycardia without a pulse. Asystole.

Ventricular fibrillation, ventricular tachycardia without pulse: diagnosis, emergency treatment algorithm prehospital. Defibrillation, readings, technics and equipment. Safety precautions during defibrillation.

Asystole. The electrical activity of the heart without a heart. Causes, diagnosis, algorithm of emergency care in the prehospital phase.

Topic 7. Bradycardia.

Bradycardia: etiology, clinical features, diagnostic methods.
Algorithm for emergency care in the prehospital phase. Pacing (ECS).
Description. Equipment. Indications and contraindications for ECS (temporary and permanent).

| | | performance technique. Safety |
|----|-------------------------------------|--|
| | | regulations. Application of ECS. |
| 3. | Assistance in urgent situations in | Theme 1. Acute respiratory failure |
| | pulmonology in the prehospital | (ARF). Bronchial asthma. |
| | phase. | ARF: definition, causes, clinical |
| | | symptoms, severity, hypoxemic coma, |
| | | differential diagnosis. Features of |
| | | physical and instrumental examination |
| | | at prehospital stage. Indications for |
| | | mechanical ventilation. Medications |
| | | for emergency care in the prehospital |
| | | phase: methods of application, |
| | | selection of doses and complications of |
| | | therapy. The diagnostic criteria for |
| | | asthma, the clinical picture. |
| | | Differential diagnosis of conditions |
| | | involving acute dyspnea occurred. |
| | | Features of physical examination at an |
| | | attack of asthma. Criteria for assessing |
| | | the severity, symptoms of life- |
| | | threatening asthma attack. Status |
| | | asthmaticus. The choice of tactics and |
| | | algorithm of emergency treatment of |
| | | bronchial asthma in the prehospital |
| | | phase. Indications for hospitalization. |
| | | Specifics of transportation and |
| | | monitoring of the patient's condition. |
| | | Topic 2: PE, emergency prehospital |
| | | algorithm. |
| | | Modern understanding of pulmonary |
| | | embolism (PE). Determining cause |
| | | clinical symptoms. Differential |
| | | diagnosis. Methods of diagnosis. |
| | | Features of an electrocardiogram |
| | | (ECG) and echocardiography |
| | | (echocardiography) for pulmonary |
| | | embolism. Algorithm for emergency |
| | | assistance in PE. Medications for |
| | | emergency care in the prehospital |
| | | phase: methods of application, |
| | | selection of doses and complications |
| | | of therapy. Features of transport and |
| | II.1. ' | monitoring the patient's condition. |
| | Help in case of emergency in | Topic 1. Acute poisoning. |
| | gastroenterology in the prehospital | |

| | phase. | Poisoning by drugs, medicaments and biological substances. Ethanol poisoning. Mushrooms poisoning. Definition. Epidemiology. Clinic. Diagnostics. Urgent care. Topic 2: Diseases of the gastrointestinal tract (GIT), accompanied by severe pain. Etiology. Pathogenesis. Clinic. Differentials-tion diagnosis. Methods of emergency diagnostics. Hepatic colic. Bleeding from the gastrointestinal tract. Principles of diagnosis. Emergency care. |
|----|---|--|
| 5. | Help with urgent conditions in urology and nephrology in the prehospital phase. | opic 1: Acute kidney injury. Renal colic. Acute urinary retention. Criteria for diagnosis, classification and clinical picture of acute kidney damage Causes of ureteral colic. The clinical picture of renal colic. Diagnosis of renal colic in the prehospital phase. Differential diagnosis. Clinic of acute urinary retention. Differential diagnosis of acute urinary retention. First aid on pre-hospital stage. Tactics for the physician in the prehospital phase. First aid for bleeding from the kidneys and urinary tract. |
| 6. | Hyperthermic syndrome at prehospital stage. | Theme 1. Algorithm emergency at hyperthermal syndrome in prehospital phase Causes of fever. Acute fever: classification, clinical picture, complications. Indicative causes prolonged fever. Differential diagnosis of infectious and non-infectious fever hyperthermia. Infectious safety. Physical and medical methods of cooling. Physical and medical methods of cooling. Indications for hospitalization. Features of transport and monitoring the patient's condition. |

| 7 | | TD 1.4 TD 3.43 04 . 47.0 |
|--------|-----------------------------------|--|
| 7. | Emergency care for allergic | Topic 1. The algorithm first aid for |
| | reactions before hospitalization. | allergic reactions to the pre-hospital |
| | | stage. |
| | | Causes of acute allergies, the most |
| | | common allergens. Classification, |
| | | clinical manifestations of the acute |
| | | allergies. Heavy (prognostically |
| | | unfavorable) allergies. The choice of |
| | | tactics and algorithm of emergency |
| | | care in the prehospital (angioedema, |
| | | generalized urticaria, anaphylactic |
| | | shock). Anti-allergic and symptomatic |
| | | therapy. Antishock measures. |
| | | Indications for hospitalization |
| | | Specifics of transportation and |
| 8. | Emergency treetment in come | monitoring of the patient's condition |
| 0. | Emergency treatment in coma | Topic 1. The algorithm of diagnostics of coma (prehospital |
| | | and emergency care). |
| | | Coma: causes, classification, criteria |
| | | for evaluation of the coma. The main |
| | | clinical differences between the |
| | | various types of com (hypoglycemic, |
| | | hyperglycemic, alcoholic, uremic, |
| | | hepatic, hypoxic coma). Plan physical |
| | | and instrumental examination of the |
| | | patient in the prehospital phase. |
| | | Diagnostic tools for rapid assessment |
| | | of biochemical parameters in the |
| | | patient. Directions therapy. The |
| | | choice of tactics and algorithm of |
| | | emergency care in the prehospital |
| | | phase. Indications for hospitalization. |
| | | Specifics of transportation and |
| | | monitoring of the patient's condition |
| Intern | al diseases. | <u> </u> |
| 1. | Diseases of the cardiovascular | Topic 1. Atherosclerosis at |
| | system in outpatient practice. | prehospital stage. |
| | | The urgency of the problem. |
| | | Epidemiology of cardiovascular |
| | | diseases. Exchange of endogenous |
| | | lipoprotein, atherogenesis. Physico- |
| | | chemical characterization of |
|] | | cholesterol, triglycerides, lipoprotein, |
| | | cholesterol, trigrycerides, hpoprotein, |

classes of lipoproteins. Classification hyperlipidemia.Clinical laboratory examination of patients with dyslipidemia. The algorithm of examination of patients with dyslipidemia. Treatment of dyslipidemia. Features of treatment of disorders of lipid metabolism in certain population groups.

Topic 2: Diagnosis of cardiovascular disease at the outpatient stage.

Diagnosis of coronary heart disease (CHD) - ECG stress test, the pharmacological tests, the stress magnetic resonance imaging (MRI) techniques rentgenoangiograficheskie - coronary angiography, ventriculography), isotopic methods.

Topic 3. Hypertensive heart disease in the practice of the district general practitioner.

Hypertensive heart disease: definition. risk factors. classification, clinical Complications characteristics. of indications hypertension, for hospitalization. **Tactics** of general practitioner clinics in newly diagnosed hypertension. Mandatory laboratory and instrumental methods. Possibilities of inspection in the clinic to identify the causes of hypertension, the role of modern non-invasive examination methods. Treatment on an outpatient basis depending on the risk. Principles of choice of drug therapy. disability examination. Spa treatment. clinical examination. Prevention.

Criteria and refractory severe hypertension, treatment **Topic 4. The syndrome of pain in the left side of the chest in ambulatory practice**

Differential diagnosis of chest pain and coronary noncoronary genesis. The main distinguishing criteria coronary

pain. Noncardiac causes of chest pain: cervical-thoracic osteochondrosis; pleural disease, hiatal hernia, diseases of the abdominal cavity.

Topic 5. Coronary heart disease in the practice of general practitioner.

Determining risk factors classification. Indications for hospitalization of patients with coronary artery disease. Treatment of coronary heart disease in the outpatient setting. Indications for surgical treatment of coronary artery disease. disability examination. Spa treatment. Primary and secondary prevention. Clinical examination.

Topic 6. Rehabilitation of patients after myocardial infarction at the outpatient stage.

anagement of patients with myocardial infarction after discharge from hospital. The objectives of rehabilitation of patients with myocardial infarction at a polyclinic stage. Types of rehabilitation

Psychological, social and occupational rehabilitation. Features of the rehabilitation of patients after surgery coronary artery bypass grafting disability (CABG). examination. Clinical examination. Secondary prevention. Spa treatment in rehabilitation of patients.

Topic 7. Vegetative-vascular dystonia in the practice of the district general practitioner.

Definition, etiology and predisposing factors, pathogenesis. Diagnostic criteria. Volume survey. Classification formulation of diagnosis. Indications for hospitalization. Treatment in outpatient settings. Examination of temporary disability and its duration. An employment forecast. Spa treatment.

Theme 8. Myocarditis and cardiomyopathy, management of patients in the outpatient setting.

Determining risk factors. classification, clinical manifestations, examination methods for diagnosis. hospitalization, **Indications** management of patients in outpatient conditions. disability examination. Clinical examination. Secondary prevention. Spa treatment of these diseases.

Topic 9. Chronic heart failure (CHF) - management of patients in an outpatient setting

Determining risk factors. classification. cus-nical picture. Diagnosis, clinical at-signs. Echocardiography in the diagnosis of heart failure. CHF treatment at the outpatient stage. **Indications** gospitilizatsii, the role of day hospital at home treatment of this pathology. Supportive therapy, the tactics of its implementation. disability examination. Rehabilitation measures. Clinical examination.

Topic 11. Antithrombotic therapy in outpatient practice in patients with stable manifestation of atherothrombosis.

What is atherothrombosis and its clinical manifestations. Antithrombotic therapy as a component of pathogenetic treatment of atherothrombosis. Drugs that inhibit the function of platelets and the coagulation cascade.

Antithrombotic therapy in patients with coronary artery disease and stable angina.

Antithrombotic therapy in patients after acute coronary syndromes.

| | | Antithrombotic therapy in patients |
|---|-------------------------------------|---|
| | | undergoing percutaneous coronary |
| | | intervention (PCI). |
| | | Antithrombotic therapy in patients |
| | | undergoing coronary artery bypass |
| | | surgery and coronary artery bypass |
| | | grafting mamma. |
| | | Antithrombotic therapy in patients |
| | | with CHF. |
| | | Antithrombotic therapy in patients |
| | | with essential hypertension (EH). |
| | | Antithrombotic therapy in patients |
| | | with atrial fibrillation (AF). |
| | | Topic 12. Management of patients |
| | | with heart valve defects in the |
| | | outpatient. |
| | | Determining risk factors, |
| | | classification, clinical picture. |
| | | Methods of diagnosis. Management of |
| | | patients on outpatient. Indications for |
| | | hospitalization. Indications for referral |
| | | to surgical treatment of |
| | | malformations. disability examination. |
| 2 | Diseases of the digestive system in | Topic 1. Methods for diagnosing |
| | outpatient practice. | diseases of the gastrointestinal tract |
| | outputter products | at the outpatient stage. |
| | | Fibrogastroduodenoscopy (EGD), |
| | | rentgenolo-ronmental, endoscopy, |
| | | ultrasound, methods of diagnosing |
| | | Helicobacter pylori. |
| | | Topic 2. The syndrome of abdominal |
| | | pain and dyspeptic syndrome. |
| | | he causes of abdominal pain: |
| | | inflammatory, functional, obstructive, |
| | | hemodynamic instability, and their |
| | | main features. The content of the |
| | | concepts of gastric, pancreatic and |
| | | intestinal dyspepsia. The role of the |
| | | violations of the secretory and motor |
| | | function of the stomach, intestines and |
| | | |
| | | pancreas in the occurrence of dyspeptic |
| | | |
| | | disorders. Diseases manifested by |
| | | diarrhea or constipation. The |
| | | |

pain, and dyspepsia. Management of patients at the outpatient stage.

Topic 3. Helicobacter related diseases.

Gastroesophageal disease reflux (GERD), chronic gastritis, gastric ulcer and duodenal ulcer. Determining risk factors, prevalence, clinical picture, Methods of Helicobacter diagnostics in an outpatient setting. The volume of laboratory and instrumental examination. Formulation of diagnosis in accordance with the modern classification. Treatment of the patients in the outpatient setting. Differentiated treatment of various types of gastritis (diet, medication and non-pharmacological therapy in the exacerbation of the disease). Tactics of outpatient physician in the event of complications during gastric ulcer and ulcer (bleeding, pyloric duodenal penetration, perforation). stenosis, Indications for hospitalization. Antirelapse treatment, including spa. examination. disability Clinical examination. Primary and secondary prevention

Topic 4. Biliary dyskinesia and chronic calculous cholecystitis in outpatient practice.

Determining risk factors classification. Clinic hyper hypokinetic and biliary dyskinesia, their diagnosis and differential treatment. disability examination.

Symptoms of chronic calculous cholecystitis not varying degrees of severity; diagnosis and treatment of this pathology. disability examination. Prevention, health examinations and health resort treatment for diseases of data.

| | | Tonio 5 Chuonio honotitis and |
|---|-----------------------------------|--|
| | | Topic 5. Chronic hepatitis and |
| | | cirrhosis of the liver in the practice |
| | | of physician |
| | | Definition. Risk factors. Classification |
| | | hepatitis Diagnostic criteria for |
| | | hepatitis. Hepatitis treatment on an |
| | | outpatient basis. The clinic, diagnosis, |
| | | classification of liver cirrhosis (LC), |
| | | the wording of the diagnosis. CPU |
| | | treatment on an outpatient basis. |
| | | Treatment of exacerbations of the |
| | | CPU, the indications for |
| | | hospitalization. Examination of |
| | | temporary and permanent disability |
| | | Medical e[amination patients with |
| | | CKD. Sanatorium stage of |
| | | rehabilitation of patients with liver |
| | | cirrhosis. |
| | | Topic 6. Functional colonic disease |
| | | in ambulatory practice |
| | | Irritable bowel syndrome, etiology, |
| | | differential diagnosis with chronic |
| | | colitis. Treatment of these patients at |
| | | the outpatient stage. Prevention. |
| | | disability examination. Clinical |
| | | examination. Spa treatment. |
| 3 | Diseases of the urinary system in | Topic 1. Diagnosis of urinary |
| | outpatient practice. | pathology at outpatient settings. |
| | | The definition of "urinary syndrome." |
| | | Types of disorders of the urinary |
| | | sediment. Differential diagnosis mo- |
| | | chevogo syndrome in outpatient |
| | | therapist. Methods of study of urinary |
| | | sediment. |
| | | Theme 2. Acute and chronic |
| | | glomerulonephritis - treating |
| | | patients on an outpatient basis |
| | | Determining risk factors, |
| | | classification. Clinical forms and |
| | | variants of acute glomerulonephritis. |
| | | Clinical and laboratory criteria. |
| | | Management of patients on outpatient |
| | | (diet, medical therapy after discharge |
| | | from the hospital). disability |
| | | examination. Clinical examination. |

The role of spa treatment and chronic disease prevention measures.

Clinical classification of chronic glomerulonephritis. Options for the course and their clinical and laboratory characteristics. methods of instrumental examination. Indications hospitalization. **Principles** of treatment in an outpatient setting. examination. disability Preventing exacerbations (diet, drug therapy, spa treatment). clinical examination.

Topic 3. Chronic pyelonephritis in the practice of the district general practitioner.

Clinical manifestations of chronic volume pyelonephritis. The of laboratory and instrumental examination, allowing to diagnose this Treatment pathology. during exacerbation and remission (diet, medication and non-drug therapy). hospitalization. Indications for Place disability examination. spa the management of treatment in patients. Clinical examination.

Topic 4: Management of patients with chronic kidney disease (CKD) in the outpatient setting.

Determining risk factors, classification. Clinic of chronic kidney disease: complaints of the patient, medical history data, functional, and laboratory and instrumental studies. CKD progression factors. Complications of CKD. Treatment. The wording of the diagnosis. Indications for hospitalization in a specialized hospital hospital. Indications for hemodialysis and

Blood disorders in outpatient practice.

Topic 1. Anemia in practice of the therapist.

examination. disability examination.

peritoneal dialysis. Clinical

4

Definition. Clinical characteristics of Modern classification anemia. anemias. Laboratory diagnosis of this syndrome. Plan obsledo-tion of the patient with anemia. Iron-deficiency anemia. Risk factors. The diagnostic criteria of iron deficiency anemia. Clinical signs giposideroza. Causes of iron deficiency in the body. Laboratory findings. Treatment and control of the effectiveness of iron therapy on an outpatient basis. disability examination. Primary and secondary prevention. Clinical examination. B12 deficiency anemia. Causes of vitamin B12 deficiency. Clinical manifestations of lesions of the digestive and nervous system, changes in hematological parameters. Diagnostic criteria. Current pathology, treatment of community-acquired on stage. disability examination. Clinical examination. 5 Topic 1: Diagnostic pathology of Respiratory disease in outpatient practice bronchopulmonary system in the outpatient practice Methods of diagnosing pathology of bronchopulmonary system in practitioner. general practice of Indications, contraindications, results Interpretation (spirography, bronchoscopy, computed tomography, sputum examination) **Topic 2. Acute respiratory infections** in outpatient practice Determining risk factors. classification. Clinical features of influenza and other respiratory adenovirus, infections (rhinovirus, in-infection, respiratory syncytial parainfluenza). Possibilities of differential-tsirovaniya on an outpatient basis. Treatment indications for hospitalization, examination of

temporary disability and its duration. Criteria for recovery and vocational rehabilitation. Primary prevention. Patients subject to dispensary observation.

Topic 3. Tonsillitis

etermining risk factors, classification. The clinical course. Methods of diagnosis. Examination of the patient with angina. Leche-of medication and non-drug, general and local. The tactics of the local therapist in suspected diphtheria and positive culture from the throat. Complications of tonsillitis - early and late. Temporary disability in angina and its timing. Clinical examination.

Topic 4: Community-acquired pneumonia - keeping patients on an outpatient basis

Determining risk factors. classification. Early symptoms pneumonia. Physical findings, volume of laboratory and instrumental examination. Indications for treatment home. in day care and hospitalization. Organization of hospital at home. The choice of antibiotic therapy and assessment of its effectiveness. **Anti-inflammatory** therapy non-drug therapies. and Examination of disability, the criteria and rehabilitation. recovery Clinical examination - the volume of activities, depending on the outcome of treatment. Prevention.

Topic 5. Chronic diseases of the respiratory system - keeping patients on an outpatient basis

Determining risk factors, classification. Chronic obstructive pulmonary disease (COPD), bronchial asthma (BA) examination as an outpatient procedure for diagnosis and forms of the disease. Treatment of

asthma in the interictal period and cupping in the outpatient setting. Treatment of COPD in an outpatient setting. Indications for hospitalization. disability examination. The tactics of the local therapist in cases of suspected professional nature of the disease. Clinical examination of the patient. Primary and secondary prevention. Spa treatment. Early manifestations of respiratory failure and pulmonary hypertension, the methods of detecting them .. Topic1. The joint syndrome in 6 Diseases of the joints in the outpatient practice. outpatient practice Inflammatory and non-inflammatory joint lesions. Acute, subacute and chronic arthritis, laboratory and instrumental confirming the diagnosis of arthritis. Rheumatoid arthritis. Its most typical Diagnostic clinical manifestations. criteria for pathology and the degree of activity of the process. Indications for hospitalization. Management of patients at the out-of-hospital stage, the place and role of Spa treatment. Examination of working capacity. Prophylactic medical examination. Deforming osteoarthritis. **Factors** predisposing to the development of deforming primary and secondary osteoarthritis. Diagnostic criteria for pathology (clinical symptoms, laboratory and instrumental examination data). The course of pathology. Treatment on an outpatient basis. Examination of working prevention. capacity. Secondary Prophylactic medical examination. Gout. Articular lesions. Scope of examination to confirm the diagnosis. Treatment. Examination of working capacity. Prevention.

| 7 | The most important syndromes in the clinic of internal diseases. | Topic 1. Subfebrility and febrile syndrome in the practice of a district General practitioner Possible reasons for the prolonged rise in body temperature so-: focal infection and generalizing-bathrooms, connective tissue disease, paraneo-plastic processes, systemic blood diseases, lymphoproliferative processes, Allerronmental reaction. The most common practice in GP infectious diseases: typhoid, paratyphoid group, brucellosis, "children's" in-infection in adults; their diagnosis. Tactics local therapist to identify them. Infective endocarditis, its diagnosis. Clinic connective tissue diseases, co-accompanied by fever and methods of diagnosis. Low-grade fever and fever with paraneoplastic processes. Scope survey for diagnosis. Tactics GP in establishing these pathologies. Lymphoproliferative disorders as a cause of fever, their diagnosis. physician tactics. Fever, lymphadenopathy, weight loss and other symptoms suggestive of HIV - infection. Survey methods for |
|---|--|--|
| 8 | Endocrine diseases in outpatient practice | Theme 1. Type 2 diabetes in the practice of the district therapist. arly symptoms of diabetes. Physical findings, the volume of laboratory and instrumental examination. Drug-free treatment of diabetes. Diet therapy. Oral hypoglycemic agents: classification, mechanism of action, indications, contraindications, complications. Insulin: Insulin types of drugs, mechanism of action, indications, counter-indications, complications. Indications for hospitalization. Organization of hospital at home. Complications. |

| | | disability examination. Clinical |
|---|-----------------------------------|--|
| | | examination. Prevention. |
| 9 | Somatic illness in outpatient | Topic 1. Features of geriatric |
| | practice in certain groups of the | patients with medical conditions in |
| | population. | the outpatient setting. The use of |
| | | drugs in the elderly. Geriatric |
| | | Rehabilitation. |
| | | Age grading. Disease, the most |
| | | common of these ages. The course of |
| | | systemic diseases, treatment differs |
| | | from treatment at a younger age. The |
| | | social aspects of disability in these age |
| | | groups. Questions of ethics and |
| | | deontology. |
| | | The use of drugs. Risk factors for |
| | | complications of medication. |
| | | Geriatric Rehabilitation. Its types |
| | | (medical, geriatric care, social, |
| | | educational, economic, professional |
| | | Topic 2. Oncological vigilance in GP work. |
| | | |
| | | Questions of diagnosis of cancer in the analysis of syndromes and clinical |
| | | entities in terms of differential |
| | | diagnosis, the dynamic of follow-up |
| | | and implementation of preventive |
| | | examinations. Possible symptoms and |
| | | reliable, allowing suspected |
| | | oncological causes lung, stomach, |
| | | intestine, thyroid gland, mammary |
| | | gland. The examination program. The |
| | | role of biochemical, enzyme |
| | | immunoassay, endoscopy, ultrasound, |
| | | O-ray (X-ray, tomography, magnetic |
| | | resonance imaging) examination |
| | | methods in establishing the diagnosis. |
| | | Topic 3. Management of patients |
| | | with somatic diseases during |
| | | pregnancy. |
| | | Women's Health. Medical (therapeutic |
| | | profile) indications for abortion. |
| | | Principles of pregnant women |
| | | suffering from rheumatism, acquired |
| | | heart diseases, hyper-pertonicheskoy |
| | | disease, kidney disease, diabetes, |

| anemia (especially e | xamination and |
|----------------------|----------------|
| treatment in various | stages of |
| pregnancy) | |

5.2. Sections and types of studies

| № | Name of discipline | | L | S | p | lbp | Ср | uw | sbp | total |
|----|---|---|---|---|---|-----|----|----|-----|--|
| 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 |
| 1 | Fundamentals of outpatient care and public health prevention. | Fundamentals of outpatient medical care. | 6 | - | - | - | 15 | 10 | | Л - 18 ПЗ – 50 СР – 33 Итого - 101 |
| | | Medical prevention. | 4 | - | - | - | 30 | 10 | | |
| | | Fundamentals of expertise disability | 6 | - | - | - | 10 | 10 | | |
| | | Evaluation of the quality of care at the outpatient stage. | 2 | - | - | - | - | 3 | | |
| 2. | Emergency care in the | Urgent states in the prehospital phase. | 4 | - | - | - | 15 | - | | Л – 22 ПЗ – 50 |
| | prehospital phase. | Emergency conditions in cardiology in the prehospital phase. | 6 | - | - | - | 20 | 14 | | CP – 40 Итого - 112 |
| | | Assistance in urgent situations in pulmonology in the prehospital phase. | - | - | - | - | 10 | 8 | | |
| | | Help in case of emergency in gastroenterology in the prehospital phase. | 4 | - | - | - | - | 4 | | |
| | | Help with urgent conditions in urology and nephrology in the prehospital phase. | 2 | - | - | - | - | 2 | | |
| | | Hyperthermic syndrome prehospital. | 2 | - | - | - | - | - | | |
| | | Emergency care for acute allergoses prehospital. | - | - | - | - | 5 | - | | |
| | | First aid at komah prehospital. | 4 | - | - | - | - | 2 | | |

| | | The damaging effect of physical factors (burns, hypothermia, electrical accident, drowning) | - | - | - | - | - | 10 | |
|---|---------------------|---|----|---|---|---|----|----|---|
| 3 | Internal illnesses. | Diseases of the cardiovascular system in outpatient practice. | 12 | - | - | - | 25 | 6 | Л – 38 ПЗ – 85 CP – 60 Итого - |
| | | Diseases of the digestive system in outpatient practice. | 8 | - | - | - | 10 | 10 | 183 |
| | | Diseases of the urinary system in outpatient practice. | 4 | - | - | - | 15 | 4 | |
| | | Blood disorders in outpatient practice. | 2 | - | - | - | 5 | 6 | |
| | | Respiratory disease in ambulatory practice. | 4 | - | - | - | 15 | 10 | |
| | | Diseases of the joints in the outpatient practice. | 2 | - | - | - | 5 | 4 | |
| | | The most important syndromes in internal medicine at the outpatient stage. | 2 | - | - | - | - | 8 | |
| | | Endocrine diseases in outpatient practice. | - | - | - | - | 5 | 6 | |
| | | Somatic illness in outpatient practice in geriatric patients and pregnant women. | 4 | - | - | - | - | 6 | |
| | | | - | - | - | - | - | - | |

6. Interactive forms of studiesn accordance with the requirements of the GEF VPO towards preparing the implementation of competence-based approach involves the widespread use in the educational process of active and interactive forms of employment.

In clinical practical classes module "polyclinic therapy" is widely used curation of patients with primary nosology topics according to clinical practice sessions. Conducted clinical reviews of supervised patients, during which the

students are involved in the discussion on disassemble patient actively discussed history and identified physical signs of the patient are assessed lab tests, identifies risk factors for the disease, clinical diagnosis, as well as the students explain the principles of treatment of the underlying disease in particular patient. Discussions of

the clinical situations on the proposed situational problems.

| № | Name of the course | posed situational problems. | Duration |
|-----|---|---|----------|
| п/п | section | Interactive forms of studies | (hours) |
| 1 | Medical prevention | The game "Custom Game" on "Immunization of adult population of Russia." | |
| 2 | Medical prevention. | Round table on the topic: "Nine healthy lifestyle drugs" "Lifestyle - seven good habits" | 2 |
| 3 | Medical prevention | The game "Telephone Health" | 1 |
| 4 | Medical prevention. | The game "FAQ" The epidemiology of NCDs, risk factors and their correction. | 3 |
| 5 | Diseases of the internal organs. | The game "FAQ" on "Diabetes" | 3 |
| 6 | Diseases of the internal organs. | "Custom Game" on "Hypertension" | 3 |
| 7 | Diseases of the internal organs. | Analysis of the clinical situation of the diagnosis on the topic: "CHD" | 3 |
| 8 | Diseases of the internal organs. | Analysis of the clinical situation with the statement relating to the diagnosis of "COPD, bronchial asthma" | 3 |
| 9 | Diseases of the internal organs. | The decision of situational problems on "hypertensive crisis". | 2.5 |
| 10 | Diseases of the internal organs. | The decision of situational problems on "Atrial fibrillation". | 2.5 |
| 11 | Diseases of the internal organs. | The decision of situational problems on the theme "On the outpatient clinic patients with chronic heart failure." | 2.5 |
| 12 | Diseases of the internal organs. | The game "calculate the dose statin" | 1 |
| 13 | Diseases of the internal organs. | Problem Solving "Assign an anticoagulant?" | 2 |
| 14 | Diseases of the internal organs. | The game "FAQ" on "community-acquired pneumonia" | 2.5 |
| 15 | Diseases of the internal organs. | The game "FAQ" on "Evaluation of disability CRF and CGN" | 2.5 |
| 16 | Неотложная помощь на догоспитальном этапе | The decision of situational problems on "Gasometer arterial blood and pulse oximetry" | 2 |
| 17 | Emergency care in the prehospital setting | Production of case scenarios on "defibrillation rhythms" | 3.5 |

| 18 | Emergency care in the prehospital setting | Production of case scenarios on "Tachycardia" | 3.5 | | | |
|------|---|---|-----|--|--|--|
| 19 | Emergency care in the prehospital setting | Production of case scenarios on "Bradycardia" | 3.5 | | | |
| 20 | Emergency care in the prehospital setting | Production of case scenarios on the theme "Do not defibrillation rhythms" | 3 | | | |
| 21 | Emergency care in the prehospital setting | Its game on "Potentially reversible causes FOC" | 2 | | | |
| 22 | Emergency care in the prehospital setting | The game "question-answer" on the theme "Monitoring the cardiac ECG" | 2 | | | |
| 23 | Emergency care in the prehospital setting | The game "to determine the rhythm of" | 1,5 | | | |
| 24 | Emergency care in the prehospital setting | The game "question-answer" on "airway" | 1,5 | | | |
| Tota | (hours) | 67ч. | | | | |
| Tota | Total (% of in-class learning) 36% | | | | | |

7. Listofteaching materials forthecourse unsupervised workofstudents (including the use of e - learning opportunities, distance learning technologies (Moodle))

The list of educational and methodological support for independent work of students in the discipline, including the use of e-learning and distance learning technologies (CAO Moodle)

The educational process of the discipline \ «Outpatient therapy» provides for 133 hours of extracurricular independent work of students

Independent work - to teach a student to meaningfully and independently work with educational material, to lay the foundations of self-organization and self-education in order to continuously improve their skills in the future.

Complies with all sections of the discipline:

- Basics of the organization of outpatient care for the population and medical prevention.
- Internal diseases
- Emergency care at the prehospital stage.

Types of independent work:

- Analysis of the literature, preparation of abstracts
- Work with legislative documents.
- Work with primary medical records of a territorial district.
- Work with patient of a territorial district.

Independent work control methods:

- Review of written abstracts
- Review of medical records
- Testing.
- Situational tasks
- Checking diaries (work as an assistant general practitioner).
- Checking ECG interpretation

Extracurricular independent work is carried out on the platform «MOODLE».

| № п/п | Name of the module | Types of independent work | Hours | Forms of control |
|----------|--|---|-------|---|
| 11/11 | the module | 10 semester | | |
| 1 | Basics of the organization of outpatient care for the population and medical prevention. | Students should study the legal documents of the Ministry of Health of RF Students should study the primary medical documentation of the territorial district. Filling out a sick-leave form, prescription forms, referrals for hospitalization, referrals for sanatorium treatment; referrals to specialists. | 5 | Testing Checking the filling out of the documentation of the general practitioner (sick leave papers, referrals for hospitalization, referrals for sanatorium treatment; referrals to specialists) |
| | | Total | 27 | |
| | | 11 – 12 semester | | |
| 2 | Internal diseases | Work along with GP at the outpatient setting | 30 | Checking an individual diary (work with GP) |
| | | Filling out an individual diary | 20 | Task evaluation Testing |
| | | ECG reading | 2 | Review of the interpreted ECG |
| | | Independent solution of situational tasks (internal medicine) | 9 | Related topic reports |

| | | Preparation for test control of internal diseases | 5 | |
|---|---|--|----|------------------------------|
| | | Self-study of medical literature followed by writing an abstract on the topic of your choice (topics are given below) | 25 | |
| | | Total 12 competer | 91 | |
| 3 | Emergency care at the prehospital stage | ECG reading | 5 | Проверка расшифрован-ных ЭКГ |
| | _ | Preparation for test control of emergency care at the prehospital stage | 10 | Test control |
| | | Total | 15 | |

8. Forms of control

8.1. Current forms of control

- oral (an interview, a report, a colloquium, defense of a project)
- written (tests, term papers, essays, abstracts, checking of lecture notes, solving of practical tasks, preparation of a case histories).

A subject list of abstracts, reports, essays, tests, term papers, test collections and cases are shown at the section «Assessment tools».

8.2. 8.2. Forms intermediate certification (comprehensive exam) Stages of the exam

- 1. Stage final testing
- 2. Stage Control of practical skills (design recipes, sick leave)
- 3. Stage practical skills at the center of pre-clinical training.

Questions for a pass/fail test and examination are listed at the section «Assessment tools».

9.Library and information materials of the course

9.1. Compulsoryliterature

| Siegenthaler W. Differential Diagnosis in Internal Medicine: From Symptom to Diagnosis [Электронныйресурс]/ W. Siegenthaler: Thieme, 2007-URL: https://medone-education.thieme.com/ebooks/2193980?fromSearch=true#/ebook_2193980_SL83144759 | Эл.изд. | Ссылку скопировать и вставить в строку поиска в браузере |
|--|---------|--|
| Steffers G. General Pathology and Internal Medicine for Physical Therapists [Электронныйресурс] : учебник/ G. Steffers, S. Credner1st ed.: Thieme, 2012- URL: https://medone-education.thieme.com/ebooks/2093236?fromSearch=true#/ebook_2093236_SL80475533 | Эл.изд. | Ссылку скопировать и вставить в строку поиска в браузере |
| Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. ЩукинМосква: ГЭОТАР-Медиа, 2016688 с URL: http://www.studentlibrary.ru/book/ISBN9785970438213.html | Эл.изд. | |
| Сторожаков Г.И. Поликлиническая терапия [Электронный ресурс] : учебник/ Г. И. Сторожаков, И. И. Чукаева, А. А. Александров2-е изд., испр. и доп Москва: ГЭОТАР-Медиа, 2013640 с: граф., табл URL: http://www.studmedlib.ru/book/ISBN9785970425015.html | Эл.изд. | |

9.2. Supplementaryliterature

| Арутюнов Г.П. Диагностика и лечение забо | олеваний Эл.изд. |
|---|------------------------------|
| сердца и сосудов [Электронный ресурс] : уч | |
| АрутюновМосква: ГЭОТАР-Медиа, 2013 | -504 c URL: |
| http://www.studentlibrary.ru/book/ISBN9785970 | 0423011.html |
| Сердечная Е. В. Диспансеризация взросло | ого Эл.изд. |
| населения [Электронный ресурс] : методиче | еские |
| рекомендации/ Е. В. Сердечная, С. В. Юрье | ва, Т. Б. |
| РомановаАрхангельск: Изд-во Северного | |
| государственного медицинского университе | та, 201648 |
| c URL: http://nb.nsmu.ru/cgi- | |
| bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID= | &I21DBN=EL |
| IB&P21DBN=ELIB&S21STN=1&S21REF=3&S | S21FMT=fullw |
| ebr&C21COM=S&S21CNR=20&S21P01=0&S2 | 21P02=1&S2 |
| 1P03=I=&S21STR=elb/C%2032-012287 | |
| Сердечная Е. В. Поликлиническая терапия | ı: экспертиза Эл.изд. |
| временной нетрудоспособности [Электронн | ый ресурс] : |
| метод. рекомендации для студентов V и VI к | курсов |
| лечеб. факультета/ Е. В. Сердечная, С. В. К | Орьева, A. C. |
| ФоминаАрхангельск: СГМУ, 201444 с- U | RL: |
| http://nb.nsmu.ru/cgi- | |
| bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID= | &I21DBN=EL |
| IB&P21DBN=ELIB&S21STN=1&S21REF=3&S | S21FMT=fullw |
| ebr&C21COM=S&S21CNR=20&S21P01=0&S2 | 21P02=1&S2 |
| 1P03=I=&S21STR=elb/C%2032-948032 | |

- 9.3. Listofthe Internet resources required for mastering of the course (module)*
 - specific sites and web portals;
 - digital collections, digital libraries, data bases and etc.;
 - specialized programs, video films, audio recordings.

- 9.4. List of the information technologies used in the educational process of the course (module)
- software: certified, licenseprogramsofgeneralandeducationalassignment, information & reference systems – Garant, Consultant and etc.

Software:

Kaspersky endpoint Security. Hoмep лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

Наименование помещений для проведения всех Адрес (местоположение) помещений для проведения всех видов учебной деятельности, видов учебной деятельности, предусмотренной предусмотренной учебным планом (в случае учебным планом, в том числе помещения для реализации ФГБОУ ВО СГМУ (г. Архангельск) самостоятельной работы, с указанием перечня основного оборудования, учебно-наглядных Минздрава России программы в сетевой форме пособий и используемого программного дополнительно указывается наименование обеспечения организации, с которой заключен договор) Учебная аудитория для проведения занятий 163000, г. Архангельск, просп. Троицкий, д. 51 лекционного типа № 2102 имени Н.П.Бычихина, административный учебный корпус, 1 этаж мебели (столы, стулья,

а) перечень основного оборудования: Комплект учебной экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 300 мест. б) наборы демонстрационного оборудования проектор, моноблок, экран, колонки в) перечень учебно-наглядных пособий: схемы, таблицы г) используемое программное обеспечение: Kaspersky endpoint Security. Номерлицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows

Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Viewer 3. Radmin Radmin Server Номердокумента 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, групповых И индивидуальных консультаций, текущего контроля промежуточной аттестации № 32, 4 этаж Договор № 372 от 16.05.2017 года организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и Архангельской области «Архангельская городская клиническая поликлиника №1». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихсяна 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор

163061, Архангельская область, г. Архангельск, Троицкий проспект, д. 99

в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, табличный и справочный материал по темам. г) используемое программное обеспечение: KasperskyendpointSecurity. № лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server Номердокумента 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163002, Архангельская область, г. Архангельск, типа, групповых И индивидуальных ул. Северодвинская, д. 16 консультаций, текущего контроля промежуточной аттестации № 52, 4-й этаж Договор № 179 от 01.03.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская городская клиническая поликлиника № 2». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, табличный и справочный материал по темам. г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Номердокумента 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Симуляционный класс № 430, учебный корпус 4 163001, г. Архангельск, просп. Троицкий, д. 180 этаж: Кабинет здорового человека и его окружения для отработки навыков. а) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам лисциплины весы ростомер, электроннт Сивпева. Компьютерный стол, столик манипуляционный МСК-549-02-МСК", аппарат ЭКГ, роботсимулятор симптомов инсульта, фантомсимулятор чел. для отоскопии, фантом человека отоскопии, симулятор пальпации виртуальный, тренажер для отработки навыков

записи и интерпретации ЭКГ в 12 отведениях с

возможностью выполнения дефибриляции и манипуляций на дыхательных путях, тренажер аускультации взрослого человека, тренажер постановки клизм И внутримышечных инъекций, фантом для обследования предстательной железы чел., фантом груди человека для обследования молочных желез, манекен-имитатор пациента электронный, экстрактор вакуумный "Вакус"7208, дефибриллятор, фантом-симулятор чел.для ретинопатии, тренажер офтальмоскопии.

163001, г. Архангельск, просп. Троицкий, д. 180

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации N = 410 учебный корпус, 4 этаж (кабинет для дебрифинга)

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 12 мест.

- б) наборы демонстрационного оборудования ноутбук, проектор, телевизор, колонки маркерная доска
- в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th2020

SYLLABUSOF THE DISCIPLINE

Discipline Hospital Surgery

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) V-VI / 9-11

Form of the interim assessment **Examination**

Department of Surgery

Discipline workload 288 (academic hours)/8 (credits)

Approved at the department meeting

Minutes No.

June 18th 2020

Head of the department

B.L. Duberman

Author and compiler:

Rybakova Evgenia Viktorovna, Assistant Professor of the Department of General,

Operative and Hospital Surgery

Arkhangelsk, 2020

1. Goals and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to provide students with the necessary information on semiotics, clinic, diagnosis, differential diagnosis of injuries and non-neoplastic surgical diseases of the chest and abdomen, peripheral vessels, surgical pathology and provision of the emergency care for patients with various surgical diseases. |
|-------------------------|---|
| Tasks of the discipline | to develop students' skills in: examination of patients with various surgical pathologies; diagnostics of surgical diseases, injuries of the chest and abdomen; providing emergency care for patients; resolving the issues of tactics of the further treatment and observation; resolving the issues of prevention of the occurrence of surgical pathology and its complications. |

2.Position of the course (module) within the structure of the educational program(EP)

The program is drawn up following the requirements of the Federal State Education Standard (FSES) in the training field31.05.01«General medicine»:

Block 1. Basic part.

A section (package) of the educational program with the course coming under is to be indicated. There should be a list of courses for which mastering of the course is a necessary prerequisite.

Professional Disciplines, on which knowledge of Hospital Surgeryis based:

- The normalanatomy,normal physiology, pathological anatomy, pathological physiology, general surgery, operative surgeryandtopographic anatomy, pharmacology, faculty therapy, anesthesiology and resuscitation, X-ray diagnostics, public health andhealth organization, trauma and emergency surgery, faculty surgery.

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of developed competences | Competences | | | |
|--------------------------------|------------------------------------|----------------------|------------------------|--|
| | Know Be able to (can) Master (be a | | | |
| | | | master in) | |
| GPC -№ | General professional competences | | | |
| 6 | how to keep medical | be able to correctly | Be able to draw up a | |
| | documentation (medical cards | interpret records in | medical history of a | |
| | of out-patient and in-patient | medical cards | patient with | |
| | surgery departments) | | thoracic, vascular, or | |

| | | | surgical pathology of the endocrine system |
|-------|---|--|---|
| PC -№ | Profes | sional competences | " " " " " " " " " " |
| 5 | how to collect and analyze complaints and medical history, examination results, laboratory, instrumental, forensic and other data to understand the patient's condition or recognize the presence or absence of the acute and chronic thoracic, peripheral vascular, esophageal, diaphragm surgical pathology; possibility to suppose pancreatic islet cell tumors, adrenal neoplasms, thymomas and thyroid gland surgical pathology in patient | to take anamnesis (history) of the patient. to perform examination of patients with acute and chronic thoracic, peripheral vascular, esophageal, diaphragm surgical pathology; possibility to suppose pancreatic islet cell tumors, adrenal neoplasms, thymomas and thyroid gland surgical pathology | - interpretation of results of general examination and analyse results of instrumental and laboratory tests of patients with acute and chronic thoracic, peripheral vascular, esophageal, diaphragm surgical pathology; possibility to suppose pancreatic islet cell tumors, adrenal neoplasms, thymomas and thyroid gland surgical pathology |
| 6 | knowledge in recognizing ofpatient's major pathological conditions, symptoms, syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th revision | which types of instrumental diagnostic to use depend on disease (select and succession) | interpreting results of instrumental methods and their application to diagnosis of different conditions |
| 8 | management of patients with acute and chronic thoracic, peripheral vascular, esophageal, diaphragm surgical pathology, pancreatic islet cell tumors, adrenal neoplasms, thymomas and thyroid gland surgical pathology | be able to explain in a reasoned manner what operation is needed in each specific case for the patient with acute and chronic thoracic, peripheral vascular, esophageal, diaphragm and endocrine surgical pathology | be able to determine indications for operative treatment |
| 10 | to know how to provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do not involve a threat to patient's life and do not require emergency medical care, for example, lung | be able to explain how risk factors affect the course of thoracic and vascular diseases, inflammatory bowel diseases; the impact of which risk factors can be eliminated | explain to the patient how to do postural drainage for lung abscess, about risk factors and prophylactics for chronic arterial or venous insufficiency |

| | abscess, rib fracture, achalasia | | of lower extremities |
|----|----------------------------------|--------------------------|------------------------|
| 11 | knowledge in providing | to take part in | first aid measures in |
| | emergency medical care for | resuscitation measures: | case of |
| | conditions requiring immediate | the sequence of actions | pneumothorax, |
| | medical intervention, for | during drainage of the | mediastinitis, |
| | example, tension | pleural cavity, to | spontaneous |
| | pneumothorax, mediastinitis, | determine the presence | esophageal rupture, |
| | spontaneous esophageal | or absence of a pulse on | acute arterial |
| | rupture, acute arterial ischemia | the arteries of the | ischemia of the limb |
| | of the limb | extremities | (chest tube insertion, |
| | | | airway protection) |

4. Volume of the course (module) and types of the academic classes: Total workload of the course is 8 credits.

4.1. Workload of the Module and Type of the academic work

| | Type of the academic work | Total hours | Term |
|--------------|--------------------------------------|-------------|------|
| Discipline | | | |
| workload | Lectures (L) | 54 | 9-11 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 115 | 9-11 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | 33,7 | 11 |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 11 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 83 | 9-11 |
| | Examination control (EC) | 0,3 | 11 |
| | Total course workload | 288 | 9-11 |
| | | | |

5. Contents of the course:

5.1. Contents of the sections of the course

| № Name of the course section | Contents of the section |
|---|-------------------------|
| 1 2 | 3 |
| 1. Curation of the patients with surgic abdominal pathology. Types of epic its structure, content. How to write epicrisis | |

and prevention. Total clinical diagnosis includes main sections: disease, complications, comorbidity.Importance of methods of construction of the diagnosis: the direct diagnosis or by analogy, differential diagnosis, and as part of it - a diagnosis by exclusion, diagnosed with synthetic or full diagnosis by observation, the diagnosis for therapeutic effect. Types of diagnosis according to the degree of validity: preliminary diagnosis, i.e., hypothetical, final diagnosis, or diagnosis under well-founded, the diagnosis question. Abstract (disease diagnosis) and specific diagnosis (the diagnosis of the patient). Types of epicrisis, its structure, content. When it must be prepared: before surgery, before discharging the patient from the hospital, post mortem, explain the necessity of long hospital stay or expensive treatment. Independent work with the patient: questioning, examination (general systems), analysis of the results of laboratory and instrumental methods of investigation, the systematization of the data, compilation of clinical diagnosis and its rationale. Anatomical and physiological information about the liver, extrahepatic biliary tree, gallbladder, bilirubin metabolism. Epidemiology, factors predispose to calculi formation. Chronic calculus cholecystitis. Pathomorphology. Etiology, pathogenesis. Clinical signs and diagnostics. Mechanical (obstructive) jaundice. Methods of physical

2. Diseases of the abdominal organs
Topic 1. Cholelithiasis,
choledocholithiasis. Chronic calculus
cholecystitis, Postcholecystectomy
syndrome

(symptoms and syndromes), laboratory tests (blood test, urinalysis, biochemical tests including direct and indirect bilirubin, liver function tests), and instrumental examinations (ultrasound, fibrogastroduodenoscopy, endoscopic retrograde cholangiopancreatography – ERCP, magnetic resonance tomography cholangiography -MRI cholangiography). "Gold standard" of surgical treatment – laparoscopic cholecystectomy, indications and contraindications., the choice of anesthesia, surgical access. Cholecystectomy through midline incision. Indications for laparotomy technique and care of the patient in the postoperative period. Preparing patients for surgery, postoperative care. Complications after cholecystectomy:

bleeding, damage of extrahepatic biliary tree,

Topic 2. Chronic pancreatitis, pancreatic cysts and fistulas

Topic 3 Postgastrectomy syndromes

Topic 4. Non-neoplasm bowel diseases (Crohn's disease, ulcerative colitis, diverticular disease, toxic megacolon, anomalies)

postcholecystectomy syndrome. Clinic of various complications; their diagnostics (ultrasound, CT, and others), treatment (surgery, ultrasonic method for draining abscesses, conservative treatment). Anatomical and physiological information about the pancreas. Classification of diseases. Chronic pancreatitis. Definition. Etiology and pathogenesis. Classification. Pathological anatomy. Clinical and time periods of course of chronic pancreatitis. Diagnostics. Treatment. Therapeutic endoscopy, indications for surgical treatment and types of operations. The outcomes of the disease. Pancreatic cysts and fistulas. Classification (postnecrotic, retention, parasite cyst, cystic form of pancreatic neoplasm, truth or pseudocyst, congenital and acquired cysts; postnecrotic, posttraumatic fistulas, fistulas appearing after surgery). Diagnosis ultrasound, ERCP, endoscopic ultrasound, fine needle aspiration – FNA), tactic, and treatment (surgical excision, distal pancreatectomy, Whipples procedure, stenting)

Anatomical and physiological information about function of the upper gastrointestinal tract after surgery. Postgastrectomy syndromes: dumping syndrome, gastroparesis, alkaline reflux gastritis, post vagotomy diarrhea, Roux syndrome, duodenal stump blow out, recurrent ulceration, gastric remnant carcinoma, small capacity syndrome, anemia/metabolic disorders, other problems (gallstones, besoars, etc). Etiology and pathogenesis. Classification. Clinic. Diagnostics (endoscopy, gastrography). Differential diagnosis. Treatment: conservative and operative. Indications for emergency and elective surgery. Different surgical tactics.

Etiological factors, pathogenesis, pathological anatomy.Epidemiology. Classification bowel diseases. Differential diagnosis of bowel diseases. Methods of diagnosis (endoscopy, barium meal, barium enema). Complications of bowel diseases: perforation with abscess formation or peritonitis, stenosis with partial or total acute bowel obstruction, gastro-intestinal diverticulitis. fistulas. bleeding). pathogenesis The complications.Diagnosis and differential

| | T | I 11 |
|----|---|--|
| | Topic 5. Gastro-intestinal fistulas (GIF). Clinical cases. | diagnosis. Therapeutic tactics for different types of complications. Types of surgeries: resection of intestine, ileo-anal or ileo-rectum pouch anastomosis, draining abscesses. Special complications: malignisation, pouchitis, internal and external gastro-intestinal fistulas. Definition. Classification: external and internal, etiology (surgery, trauma, inflammatory bowel diseases, acute surgical diseases — acute appendicitis, acute cholecystitis, malignant neoplasms, radiation), daily-output. Pathogenesis. Clinical presentation, diagnosis, differential diagnosis, treatment. Factors, predisposing or not to spontaneous closure (FRIENDS mnemonic technique — foreign body, radiation, inflammation, neoplasm, distal obstruction, short track). Therapy: S — skin care, N — nutrition, A — anatomy, P — plan and psychology consultation (SNAP). Types of operations: resection of intestinal loop with fistula, anastomosis between afferent and efferent limb, plastic with muscular flap. |
| 3. | Introduction in thoracal surgery.Principles of diagnosis and surgery of thoracal patients. Epicrisis. | Basic investigation methods of thoracal patientSubjective methods: past history, patient complaints (pulmonary, esophageal, extra-thoracal). Objective methods: examination; laboratory analysis, X-ray, spirometry, endoscopic, and morphological methods. Independent work with the patient of thoracal surgery department: questioning, examination (general and systems), analysis of the results of laboratory and instrumental methods of investigation, the systematization of the data, compilation of clinical diagnosis, differential diagnosis, and write epicrisis. Clinical cases. Case history and out-patient card of the patient. |
| | Topic 1. Acute pulmonary suppuration or acute infectious lung destruction (acute lung abscess and lung gangrene). | Definition, anatomy, etiology, pathogenesis, pathological anatomy. Classification of lung destractions. Prevails tracheobronchial way of infection, presented three mechanisms: inhalation (inhalatory), aspiration of pus leaking in the "healthy" bronchi from the affected parts of the lung. Clinical picture (acute and step-wise origin). Complications: acute pleural empyema, acute pleural empyema; acute abscess and pneumonia of another lung; serofibrous or purulent pericarditis; phlegmon of the chest wall; |

Topic 2. Acute and chronic pleural empyema.

Topic 3. Closed chest trauma.

Topic 4. Penetrating chest trauma.

Topic 5. Mediastinitis.

sepsis; bronchial [pulmonary] hemorrhage; acute erosions and ulcers of the digestive tract with hemorrhage; toxic hepatitis; acute toxic psychosis.

Diagnostic algorithm, differential diagnosis. Conservative treatment (antibacterial therapy, immunity stimulation, deintoxication and correction of the volume of blood circulation with central venous pressure and hourly urine output control, sanation of the trachea and bronchi, physiotherapy).

Surgeral treatment:pneumoabscessotomy, pneumoabscessoscopy,lobectomy, pneumonectomy, bilobectomy is rare.

Definition, etiology, pathogenesis.

Pathologic anatomy of the acute and chronic pleural empyema. Empyema's classification. Clinical picture and diagnostic of the acute pleural empyema. Therapeutic and surgical treatment, outcomes of the acute pleural empyema. Clinical picture and diagnostic of the chronic pleural empyema. Therapeutic and

surgical treatment, outcomes of the chronic

pleural empyema

Definition, epidemiology, clinical picture, diagnosis (chest and abdominal X-rays, ultrasound, endoscopy, computed tomography - CT, thoracocentesis, thoracoscopy). Possible complications. Rib fractures, contusion of the wall, flail chest, pneumothorax, hemothorax, lung contusion, heart contusion, cardiac tamponade, aortic tear, bronchial tear, esophageal rupture, diaphragm rapture, damage of abdominal organs by fractured ribs. Tactics due to general patient's condition. Surgical treatment: chest tube insertion, rib fracture fixation, suturing of the lung, resection of the part of the lung). Outcomes.

Definition, epidemiology, clinical picture, diagnosis (chest and abdominal X-rays, ultrasound, endoscopy, computed tomography - CT, thoracoscopy). Possible complications: pneumothorax, persisting air leaking, hemothorax. Cardiac injury, damage of big blood vessels. Tactics due to general patient's condition. Surgical treatment: chest tube insertion. thoracoscopy approach, heart suturing, suturing of the lung. Outcomes.

Definition, epidemiology, pathophysiology, pathogens. Risk of lethal outcome. Couses including primary neck infection, foreign body, pharyngitis, tonsillitis, sinusitis,

otitismedia. dentalinfections. sialadenitis. suppurative thyroiditis, endotracheal intubation, spontaneous or traumatic rupture oesophagus, cardio-vascular surgery. Fibrosing mediastinitis. Clinical picture, diagnosis (neck, chest X-ray, CT, laboratory tests, during surgery). Surgical treatment: drainage approaches. Conservative therapy: antibacterial therapy, detoxication. Definition, pathological anatomy, prevalence, epidemiology, pathophysiology. Topic 6. Pericarditis. Common of pericarditis and pericardial effusion:idiopathic, infectious—bacterial. viral, fungal, HIV (human immunodeficiency myocardial infarction, radiation, postoperatively after open heart surgery, chest trauma—blunt, sharp, malignancy: primary—mesothelioma, angiosarcoma and metastatic—lung, breast, bone, lymphoma, melanoma, collagen vascular diseasesrheumatoid arthritis, SLE (systemic lupus metabolic-uremia, erythematosus), hypothyroidism, pharmacologic—penicillin, phenytoin, procainamide, hydralazine, minoxidil, cromolyn sodium, methysergide, doxorubicin. Signs and symptoms. Diagnosis. examination Physical findings. Electrocardiography, echocardiography, chest X-ray, magnetic resonance imaging and computed tomography, laboratory tests. Treatment: medical management, pericardiocentesis, percutaneous balloon pericardiotomy, subxyphoid pericardiostomy, pericardectomy. Outcomes. Clinical cases. Classification of the cardio-vascular diseases: 4. Introduction to cardio-vascular surgery. Methods of examination and ischemic heart disease, transitory ischemic treatment of patients with cardio-vascular attack and stroke, peripheral artery disease, diseases. Prepare to write epicrisis for the vein diseases. aneurisms.Risk factors. patient with cardio-vascular or metabolic syndrome. Pulsation on different points. Symptoms of acute and chronic arterial endocrinology pathology. and venous insufficiency, diagnostic algorithm (ultrasound examination with duplex scanning, rheovasography, angiography and CT angiography). Operative (classical and endovascular) and non-operative (antiplatelet agents, anticoagulants) treatment. The role of angiography as a diagnostic and therapeutic method. Peripheral artery Topic 1. Surgical pathology of arteries. atherosclerosis. disease: vasculitis. arterial insufficiency Acute (thrombosis, embolism), classification.

Topic 2. Surgical pathology of veins.

Topic 3. Surgical treatment of ischemic heart disease (IHD).

Topic 4. Surgical treatment of congenital and acquired heart defects.

Methods of diagnostic and surgical tromboembolectomy, (trombectomy, endovascular surgery, bypass surgery) and conservative (trombolitic agents, anticoagulants) Rheserford treatment. classification (mild, severe moderate, claudication). Clinical picture due to level of occlusion.Dry and wet gangrene. Artery trauma. Ligating, suturing, bypass surgery. thrombosis. Deep vein Acute

Deep vein thrombosis. Acute vein insufficiency. Clinical picture, diagnosis. Pathophysiology. Complications: pulmonary embolism, posttrombectomy syndrome.

Chronic vein insufficiency, primary and secondary. Varicous veins, CEAP classification. Thrombophlebitis of superficial veins. Treatment (compression, elevation, phlebotonics, Trendelenburg procedure, phlebectomy).

Atherosclerosis of coronary arteries. Epidemiology, risk factors, clinical picture, diagnosis. Electrocardiography, echocardiography. Acute myocardial infarction. Urgent thrombolysis, endovascular procedures coronarography, (ballon angioplasty, stenting) and their technics. Aorto-coronary bypass surgery. Outcomes and prognosis.

common More forms of congenital malformations: aortic stenosis, atrial septal defect. atrioventricular septal defect (AVSD), coarctation of the aorta, complete arteries transposition of the great (TGA), Ebstein's anomaly, hypoplastic left heart syndrome (HLHS), pulmonary atresia, pulmonary stenosis, single ventricle anomalies, tetralogy of Fallot, total anomalous pulmonary venous return (TAPVR), tricuspid atresia, truncus arteriosus, ventricular septal defect (VSD). Clinical picture, diagnosis including angiography, prognosis. Special surgical procedures: palliative surgery, balloon angioplasty, balloon dilatation, arterial switch procedure, Blalock-Taussig (BT) shunt, Norwood procedure.

The acquired valvular heart disease: defects of the mitral valve, defects of the aortic valve, defects of the tricuspid valve, defects of the pulmonic valve. Etiology, clinical picture, diagnosis (physical examination, murmurs, ECG, ECHO). Operative treatment – implantation of artificial prosthesis,

| 5. Surgical esophageal pathology. | comissurotomy. Esophageal motility disorders (achalasia), |
|---|--|
| | 1 0 7 |
| | esophageal diverticuls: Zenker diverticulum, |
| | bifurcational diverticuls, epiphrenic |
| | diverticulum, esophageal chemical burns and |
| | strictures. Causes, classifications, clinical |
| | picture, diagnosis (physical examination, |
| | esophagoscopy, barium meal). Medical care, |
| | surgical care (myotomy, diverticulectomy, |
| | dilatation procedure, artificial esophagus). |
| 6. Surgical treatment of diaphragm hernias. | Hiatal hernias: sliding and paraesophageal. |
| | Epidemiology, anatomy (His angle). |
| | Connection with gastro-esophageal reflux |
| | disease. Different modifications of |
| | fundoplication procedure, crurorrhaphy. |
| | Traumatic diaphragmatic hernias. Causes |
| | (closed and penetrating chest trauma, |
| | thoracoabdominal injuries). Clinical picture, |
| | complications, diagnosis (physical |
| | examination, X-ray, CT, laparoscopy). |
| | Surgical treatment: suturing, mesh fixation. |
| 7. Surgical endocrinology. | Thyroid gland surgery. Nodus or diffuse |
| Topic 1. Thyroid gland surgery. | goiter. Hyper-, hypothyroidism. Clinical |
| Topic 1. Thyroid gland surgery. | picture, diagnosis (physical examination, |
| | laboratory tests, ultrasound, fine needle |
| | aspiration – FNA). Preparing to surgery. Total, |
| | subtotal thyroidectomy, isthmus resection. |
| | Postoperative complications. |
| Topic 2. Thymus surgery, suprarenal | Thymus surgery. Anatomy, physiology. |
| gland surgery, | Benign and malignant thymoma. Clinical |
| giand surgery, | picture, diagnosis, surgical approaches |
| | (sternotomy, resection). |
| | Suprarenal gland surgery. Anatomy and |
| | |
| | \mathcal{E} |
| | non-functional neoplasms. Symptoms and |
| | syndromes. Adrenalectomy (classical and |
| Tonia 2 Islat managastia turas and | laparoscopy approach). |
| Topic 3. Islet pancreatic tumors. | Hormone producing pancreatic neoplasms: |
| Final control of knowledge and practical | insulinoma, glucagonoma, gastrinoma, VIP- |
| skills. | oma (producing vasointestinal peptide), |
| | somatostatinoma. Functional and non- |
| | functional neoplasms. Symptoms and |
| | syndromes (Verner-Morrison, Zollinger- |
| | Ellison). Diagnosis, including endoscopic |
| | ultrasound, CT, blood sampling, octreotide |
| | scuns. Surgery, indications, volume of |
| | resection: pancreaticoduodenectomy (the |
| | Whipple resection), distal pancreatectomy. |
| | Final control of knowledge in test form and |
| | practical skills. |

5.2. Sections and types of studies

| No | Name of the course section | L | СР | Self- studies | Total hours |
|----|---|----|----|------------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Curation of the patients with surgical abdominal pathology. Types of epicrisis, its structure, content. | | 5 | 3 | 8 |
| 2 | Diseases of the abdominal organs | 16 | 25 | 10 | 51 |
| 3 | Introduction in thoracal surgery.Principles of diagnosis and surgery of thoracal patients | 2 | 5 | 2 | 9 |
| 4 | Surgical diseases of lung and pleura, chest trauma | 14 | 30 | 10 | 54 |
| 5 | Introduction to cardio-vascular surgery.Methods of examination and treatment of patients with cardio-vascular diseases. | 10 | 20 | 18 | 48 |
| 6 | Surgical esophageal pathology | | 5 | 5 | 12 |
| 7 | Surgical treatment of diaphragm hernias. | 2 | 5 | 5 | 12 |
| 8 | Surgical endocrinology | 2 | 15 | 5 | 22 |

6. Interactive forms of studies (in Moodle)

Active and interactive forms of work used in the educational process: individualization and flexibility of elective through outside of class, independent work, surgical simulations, business and role-playing, brainstorming, discussion, case method (analysis of situations), small group work, case studies, psychological and other trainings, creative tasks, case studies with the standards of responses, multimedia training.

Methods basedon the latest achievements of science and information technology in education are used in the process of teaching. They are aimed to improve the quality of training through the development of students' creativity and self-reliance. For this purpose are used:

- •interactive formsof holding seminarsand clinical dissections
- •trainingformofpractical training.

| No | Name of the course section | Interactive forms of studies | Duration (hours) |
|----|--|--|------------------|
| 1 | Diseases of the abdominal organs | Analysis of specific clinical situations. Presentation and defence of epicrisis | 5 |
| 2 | Surgical diseases of lung and pleura, chest trauma | • | 5 |
| 3 | Methods of examination and treatment of patients with cardio-vascular diseases | 1 | 2 |
| | | Total (hours) | 12 |

| Total (% of in-class learning) | 10% |
|--------------------------------|-----|

7. Listofteaching materials forthecourse' unsupervised workofstudents

| No | Name of the course section | Types of self-studies | Forms of control |
|----|--|---|----------------------|
| 1 | Curation of the patients with surgical abdominal pathology. Types of epicrisis, its structure, content | Preparation of student's epicrisis. | Check of epicrisis |
| 2 | Diseases of the abdominal organs | The solution of situational tasks - cases | Check of solutions |
| 3 | Introduction in thoracal surgery.Principles of diagnosis and surgery of thoracal patients. Epicrisis. | Preparation of student's epicrisis. | Check of epicrisis |
| 4 | roduction in thoracal surgery.Principles of diagnosis and surgery of thoracal patients. Epicrisis. | The solution of situational tasks | Check of solutions |
| 5 | Introduction to cardio- vascular surgery. Methods of examination and treatment of patients with cardio-vascular diseases. Prepare to write epicrisis for the patient with cardio-vascular or endocrinology pathology. | Preparation of student's epicrisis. | View presentation |
| 6. | Surgical esophageal pathology | The solution of situational tasks | Check of solutions |
| 7. | Surgical treatment of diaphragm hernias | The solution of situational tasks | Check of solutions |
| 8. | Surgical endocrinology | Preparing a multimedia presentation on diagnosis and treatment of islet pancreatic tumors, adrenal neoplasms. | View presentation |

8. Forms of control¹

8.1. Forms of current control

- Oral: interview report, the defence of the medical case history, clinical examination of the patient, analysis of multimedia presentations and slideshows, assessment of the report;

¹ To control knowledge in Moodle system, students must complete tasks and send response files to the teacher. InMoodle system tests for control of knowledge also are located: in the 9th semester – in abdominal surgery (chronic pancreatitis, pancreatic cysts and fistulas, cholelithiasis), in the 10th semester- in thoracic surgery, in the 11th semester-a test that includes questions devoted to vascular surgery, esophageal and diaphragm pathology, and surgical endocrinology.

- Written: test control, essays, summaries, writing abstractson the topicsof missedpractical lessons, solving clinical case tasks. Check of case history.

A subject list of abstracts, reports, essays, tests, term papers, test collections and cases are shown at the section «Assessment tools».

8.2. Forms of interim assessment: examination

Stages of examination

- 1 Stage—knowledge control –special list of multiple-choice questions (repeat emergency care, general surgery);
- 2 Stage certification of practical skills and clinical thinking credit with participating of the patient;
- 3. Stage interview onthe ticketand the solution of situational tasks with description of chest, abdominal X-ray or CT, or esophagogastrography.

Questions for a multiple-choice control and examination are listed at the section in the syllabus «Assessment tools».

9. Maintenance of the course

9.1. Compulsoryliterature

- 1.Surgery. A Case Based Clinical Review/ ed.: Christian de Virgilio, Areg Grigorian. Springer, 2015. 723 p.: il.
- 2. Bailey and Love's Short Practice of Surgery/ ed.: N.S. Williams, P.R. O'Connell, A.W. McCaskie. 27th ed.:CRC Press, 2018. 1536p.: ill.
- 3. Manipal Manual of Surgery. 4th edition. K. Rajgopal Shenoy, Anitha Shenoy (Nileshwar). CBCPublishers&Distributors, 2014. 1224 p., ill.
- 4. A manual on Clinical Surgery. S. Das. 10^{th} edition, Calcutta, 2008.-650 p., ill.
- 5. Manipal Manual of Surgery/ ed.: K.R Shenoy, A. Nileshwar. -3d ed.: CBS Publishers & Distributors, 2010. -969 p.: il.
- 6. Care for Surgical Patients [Электронныйресурс]: study guide/ A. V. Kruchkova, Yu. V. Kondusova, I. A. Poletayeva. -Moscow: GEOTAR-Media, 2020. -144 c.- URL:
- https://www.studentlibrary.ru/ru/book/ISBN9785970456644.html
- 7. Gostishchev V.K. General surgery: The manual [Электронныйресурс]/ V. K. Gostishchev . -Mосква: GEOTAR-Media, 2020. -220 p.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970454398.html
- 8. Surgical diseases: in 2 vol. Vol. 1.: textbook [Электронныйресурс]/ N. V. Merzlikin [идр.]. -Москва: ГЭОТАР-Медиа, 2021. -360 с.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970458525.html
- 9. Essentials of Clinical Examination Handbook. [Электронный ресурс]/ Y. Shi [и др.]. -8th ed.: Thieme, 2018- URL: https://medone-education.thieme.com/ebooks/2251929#/ebook 2251929 SL84831974

10. Госпитальная хирургия. Синдромология [Электронный ресурс]: учебное пособие/ А. Г. Абдулаев [и др.]; ред.: Н. О. Миланов, Ю. В. Бирюков, Г. В. Синявин. -Москва: ГЭОТАР-Медиа, 2013. -440 с.: ил.-

9.2. Supplementary literature.

- 1. Внутрипросветная хирургия грудной и брюшной полостей: практическое руководство. В.Н. Новиков, Н.В. Ложкина и др. СПб.: СпецЛит, 2016. 115с.
- 2. Госпитальная хирургия. Синдромология. А.Г. Абдулаев. М.: ГЭОТАР-Медиа, 2017. 503с.
- 3. Диагностический справочник хирурга. В.Н. Астафуров. Ростов-н/Д.: Феникс, 2003. 444 с.
- 4. Малоинвазивная хирургия щитовидной железы / Ю.К. Александров и др. М.: Медицина, 2016. 288c.
- 5. Неотложная хирургическая гастроэнтерология : рук. для врачей / Под ред.: А.А. Курыгина и др. СПб.; М. ; Харьков ; Минск : Питер, 2001. 480 с. (Спутник врача).
- 6. Неотложная хирургия груди и живота: Руководство для врачей / Л.Н. Бисенков. СПб.: СпецЛит, 2015. 574с.
- 7. «Острый панкреатит»: руководство для врачей / под редакцией проф. Э.В. Недашковского. – М.: ГЭОТАР – Медиа. – 2009. – 272с.
- 8. Основы неотложной хирургической помощи: руководство для врачей общей практики: [В 2 т.]. Т.2: Специальная часть / Сев. гос. мед. ун-т; Под ред. Р.Н. Калашникова. 2-е изд., испр. и доп. Архангельск: СГМУ, 2002. 279 с.
- 9. Воробьев А.А.Хирургическая анатомия оперированного живота и лапароскопическая хирургия спаек: [Монография] / А.А. Воробьев, А.Г. Бебуришвили. Волгоград: Издатель, 2001. 240 с.
- 10. Горшков С.З. Закрытые повреждения органов брюшной полости и забрюшинного пространства : [монография] / С.З. Горшков. М. : Медицина, 2005. 221 с. (Библиотека практического врача).
- 11. Дыньков С.М., Поздеев В.Н., Кузнецов А.А., Тодрик А.Г. Лапароскопическая холецистэктомия при остром холецистите. Архангельск. 2000.
- 12. Дыньков С.М., Тодрик А.Г., Совершаев А.П., Слободянюк Е.В. Эндоскопическая ретроградная холангиопанкреатография. Архангельск. 2001.
- 13. Рехачев В.П. Острый живот. Архангельск. Издательский центр СГМУ. 2003. 178 с.
- 14. Рехачев В.П. Послеоперационные вентральные грыжи. Диастазы прямых мышц живота / В.П. Рехачев; Арханг. мед. акад. ; Арханг. гос. мед. акад. Архангельск: Издат. центр АГМА, 1999. 195с.
- 15. Седов В.М. Аппендицит. С-Петербург. Мед. Из-во ООО «ЭЛБИ-С. Пб», 2002.

- 16.Селезнёв С.А., Шапот Ю.Б., Багненко С.Ф., Курыгин А.А. Травматическая болезнь и её осложнения. С. Пб. Политехника, 2004.
- 17. Тимербулатов В.М. Хирургия абдоминальных повреждений / В. М. Тимербулатов [и др.]. М.: МЕДпресс-информ, 2005. 255 с.
- 18. Федоров И.В., Сигал Е.И., Славин Л.Е. Эндоскопическая хирургия; М.: ГЭОТАР-МЕД, 2009. 544 с.
- 19. Шерлок Ш. Заболевания печени и желчных путей: пер. с англ. / Ш. Шерлок, Дж. Дули; ред. З.Г. Апросина. М.: Гэотар-Мед., 2002. 859 с.
- 20. Шулутко А.М. Эндоскопическая торакальная хирургия: Руководство для врачей / А.М. Шулутко, А.А. Овчинников и др. М.: Медицина, 2006. -392 с.
- 21. Яицкий Н. А. Седов В.М. Сопия Р.А. Острый панкреатит.. М.: МЕДпресс-информ, 2003. 224 с.
- 22. Янушко В.А. Хирургия аорты и ее ветвей / В.А. Янушко. Витебск: Медицинская литература, 2013. -224с.
- 23. Ярема И.В. Хирургия язвенной болезни желудка: рук. для врачей / И.В. Ярема, Б.М. Уртаев, Л.А. Ковальчук. М.: Медицина, 2004. 303 с.
- 24.Основы ухода за пациентом в хирургической клинике = Basics of Nursing Care in Surgery [Электронный ресурс] : учебное пособие на русском и английском языках/ Н. Г. Косцова [и др.] ; ред. И. В. Курдюкова. -Москва: ГЭОТАР-Медиа, 2020. -312 с.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970453834.html
- 25. Хирургические болезни [Электронный ресурс] : В 2 т. : учеб. для высш. проф. образования/ Н. В. Мерзликин [и др.] Т. 1. -Москва: ГЭОТАР-Медиа, 2015. -400 с.: ил.- URL: http://www.studmedlib.ru/book/ISBN9785970434567.html
- 26.Хирургические болезни [Электронный ресурс] : В 2 т. : учеб. для высш. проф. образования/ Н. В. Мерзликин [и др.] Т. 2. -Москва: ГЭОТАР-Медиа, 2015. -600 с.: ил., [1 л. цв. ил.]- URL: http://www.studmedlib.ru/book/ISBN9785970434574.html
- 27. Manipal Manual of Surgery [Текст]/ ed.: K.R Shenoy, A. Nileshwar. -3th. ed.: CBS Publishers & Distributors, 2010. -969 p.: il.

9.3.List of the Internet resources required for mastering of the course (module)

International databases

| 1 | Database «Scopus» | | http://www.scopus.com/ |
|---|---------------------------|------------|--------------------------------------|
| 2 | Electronic | archiveof | www.sagepub.com |
| | magazinespublishing | SAGE | |
| | PUBLICATIONS | | |
| 3 | Electronic | archiveof | http://iopscience.iop.org/jornals?ty |
| | magazinespublishing IOP I | Publishing | pe=archive |

| 4 | Electronic archiveof magazinespublishing OXFORD UNIVERSITY PRESS | www.oxfordjournals.org/ |
|---|---|--|
| 5 | Electronic archiveof magazineSCIENCE publishing AAAS | www.sciencemag.org. |
| 6 | Electronic archiveof magazinespublishing ROYAL SOCIETY OF CHEMISTRY | www.rsc.org/ |
| 7 | Electronic archiveof magazinespublishingPubMed Central | http://www.ncbi.nlm.nih.gov/pub med |

University library

| 1 | Electronic libraryNSMU | http://lib.nsmu.ru/lib/ |
|---|------------------------|-------------------------|

9.4 List of information technologies used in the educational process within the coarse (module), including software and referral systems

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом, в том числе помещения для самостоятельной работы, с указанием перечня основного оборудования, учебно-наглядных пособий и используемого программного обеспечения Учебная аудитория для проведения занятий | Адрес (местоположение) помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом (в случае реализации ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России программы в сетевой форме дополнительно указывается наименование организации, с которой заключен договор) 163000, г. Архангельск, просп. Троицкий, д. 51 |
|--|---|
| лекционного типа № 2403 Морской медицины, административный учебный корпус, 4 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 300 мест. б) наборы демонстрационного оборудования колонки, моноблок, проектор, экран в) перечень учебно-наглядных пособий: схемы, таблицы | |
| г) используемое программное обеспечение: Каspersky endpoint Security. Номерлицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793 Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно | |

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации $N \ge 40$, подвал хирургического корпуса

Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

- б) наборы демонстрационного оборудования ноутбук, проектор
- в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп, обучающие таблицы, схемы, видеофильмы, таблицы по всем разделам дисциплины, цифровые фотоматериалы, наборы хирургических операционных инструментов (используются наборы инструментов операционных

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации N_{2} 64, 5 этаж экстренная хирургия

Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

- б) наборы демонстрационного оборудования ноутбук, проектор
- в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп, обучающие таблицы, схемы, видеофильмы, таблицы по всем разделам дисциплины, цифровые фотоматериалы, наборы хирургических операционных инструментов

163062, Архангельская область, г. Архангельск, пр. Ломоносова, д. 292

163045, Архангельская область, г. Архангельск, проезд Сибиряковцев, д. 15

(используются наборы инструментов операционных г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server Номердокумента 11001793 Trafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163045, Архангельская область, г. Архангельск, типа, групповых и индивидуальных консультаций, проезд Сибиряковцев, д. 15 текущего контроля и промежуточной аттестации № 71, 4 этаж отделение хирургической инфекции Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава и ГБУЗ Архангельской России области «Архангельская областная клиническая больница». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп, обучающие таблицы, схемы, видеофильмы, таблицы по всем разделам дисциплины, цифровые фотоматериалы, наборы хирургических операционных инструментов (используются наборы инструментов операционных г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Viewer 3. Radmin Radmin Server Номердокумента 11001793 соглашение Trafficinspector. Лицензионное №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163045, Архангельская область, г. Архангельск, типа, групповых и индивидуальных консультаций, проезд Сибиряковцев, д. 15 текущего контроля и промежуточной аттестации № 63, 5 этаж экстренная хирургия Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп, обучающие таблицы, схемы, видеофильмы, таблицы по всем разделам дисциплины, цифровые фотоматериалы, наборы хирургических операционных инструментов (используются наборы инструментов операционных

г) используемое программное обеспечение:

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MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

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Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарного типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации N = 324 учебный корпус, 3 этаж

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 24 места.

- б) наборы демонстрационного оборудования ноутбук, проектор
- в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, табличные и справочные материалы по темам занятий, муляжи.

г) используемое программное обеспечение:

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163001, г. Архангельск, просп. Троицкий, д. 180

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education "NORTHERN STATE MEDICAL UNIVERSITY" of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUSOF THE DISCIPLINE

Discipline Oncology, Radiotherapy

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) V / 9

Form of the interim assessment Credit

Department of Radiology, Radiotherapy and Oncology

Discipline workload 108 (academic hours) / 3 (credits)

Approved at the department meeting

Minutes No.

June 20th 2020

Head of the department

M.Y. Valkov

Author and compiler:

Valkova Liudmila Evgenievna, Assistant Professor of the Department of Radiology,
Radiotherapy and Oncology

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to train of students for the implementation of professional activities in the field of oncology and radiation therapy. |
|-------------------------|---|
| Tasks of the discipline | formation of basic medical knowledge in the field of oncology and radiation therapy among students; formation of students' skills in: early recognition of a malignant neoplasm when examining a patient; differential diagnosis with other diseases proceeding with similar symptoms, based on their leading syndromes; selection of optimal methods of laboratory and instrumental examination to confirm or cancel the diagnosis of cancer; mastering the methods of combined and complex treatment of the main localizations of malignant tumors in adults and adolescents. diagnostics, treatment and prevention of oncological diseases; preparation of patients for radiation therapy; carrying out radiation therapy. |

2. Position of the course within the structure of the educational program

The program is designed in accordance with the requirements of the Federal State Educational Standard of Higher Educationin the training field31.05.01.General medicine Block 1. Basic part.

The list of disciplines, which are a necessary for studying the discipline "Oncology, radiation therapy»:

Physics Human anatomy Pathological anatomy Radiology Internal diseases Surgery Neurology

3. List of intended learning outcomes on course (module), correlated with the planned results of the educational program

| Codes of | a student has knowledge | a student is able to | a student masters |
|----------|-------------------------|----------------------|-------------------|
| formed | of | | |
| | | | |

| competences | _ | | | |
|--------------------------|--|---|--|--|
| Professional competences | | | | |
| PC- 5 | anamnesis, physical exa | to collect and analyze complaints of the patient's cancer profile, data of his history, the results of the examination, laboratory, instrumental, pathologic and anatomical and other studies in order to recognize the state or establish the presence or absence of the disease | umental, post-mortem and | |
| PC-6 | syndromes of diseases, n | to identify the main pathological forms in accordance with ICD-10 | ance with the international | |
| PC - 8 | ability to determine the nosological forms etiology, pathogenesis, clinical syndromes, principles of diagnosis, treatment, rehabilitation of patients with malignant neoplasm | to determine the tactics for management of oncological patients with different nosological forms | skills in determining the tactics of management of patients with cancer profile with different nosological forms | |

| | basic principles of | to determine the | skills of clinical |
|-------|---|-------------------------------|-----------------------------|
| | planning and | effective method of | application of different |
| | conducting radiation | radiation therapy in a | methods of radiation |
| | therapy in patients | - · | |
| | 1 1 | particular clinical | therapy |
| | with malignant | situation | |
| | neoplasm | | |
| | | ent and treatment of patients | s with various nosological |
| | forms in outpatient and of algorithms for | to determine the tactics | skills of management of |
| | | | skills of management of |
| | management and | of management and | patients of the |
| PC-9 | treatment of cancer | treatment of patients | oncological profile with |
| | patients with different | with cancer profile with | various nosological |
| | nosological forms in | different nosological | forms in out-patient |
| | outpatient and day | forms in outpatient and | conditions and |
| | hospital conditions | day hospital conditions | conditions of day time |
| | | | OPD in hospitals. |
| | readiness to provide med | dical care in case of sudden | acute diseases, conditions, |
| | exacerbation of chronic | diseases that are not accor | npanied by a threat to the |
| | life of the patient and do not require emergency medical ca | | dical care |
| | rules of medical care | provide medical care in | skills of medical care in |
| | in case of sudden | case of sudden acute | sudden acute cancer |
| | acute oncological | cancer diseases, | diseases, conditions, |
| PC-10 | diseases, conditions, | conditions, exacerbation | exacerbation of chronic |
| | exacerbation of | of chronic diseases that | diseases that are not |
| | chronic diseases that | are not accompanied by | accompanied by a threat |
| | are not accompanied | a threat to the life of the | to the life of the patient |
| | by a threat to the life | patient and do not | and do not require |
| | of the patient and do | require emergency | emergency medical care |
| | not require emergency | medical care | |
| | medical care | | |
| | | | |

1. VOLUME OF DISCIPLINE AND KINDS OF EDUCATIONAL WORK:

The total laboriousness of the discipline is 3 credit units.

| | Type of the academic work | Total hours | Term |
|--------------|--------------------------------------|--------------------|------|
| Discipline | | | |
| workload | Lectures (L) | 18 | 9 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 35 | 9 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | | |

| Pro | eparation for the credit (PC) | | |
|-----|-------------------------------|-----|---|
| Ex | cam consultations (EC) | | |
| Co | oursework (CW) | | |
| Un | nsupervised work (UW) (total) | 55 | 9 |
| Ex | camination control (EC) | | |
| To | otal course workload | 108 | 9 |
| | | | |

2. THE CONTENT OF THE DISCIPLINE:

5.1. The content of sections of discipline

| № | names of the section of discipline | Content of sections |
|-----|-------------------------------------|---|
| | <u>I</u> | I. general oncology |
| 1.1 | General issues of clinical oncology | Current problems of Oncology. Organization of oncological care in Russia and selected World regions. The Incidence and mortality from malignant neoplasms. Age-sexual characteristics. Dynamics and structure of incidence. Regional features of the spread of malignant neoplasms. Factors contributing to the occurrence of tumors. The most important research areas in Oncology. The dynamics of the cure rate of cancer patients. Modern achievements in Oncology. The structure of the Oncology service. Cancer center, cancer office. Diagnostic center. General description of the state of cancer care. The doctrine of the tumors. Pathogenesis of clinical symptoms. Principles of diagnosis and treatment of malignant tumors Etiology of tumors. Precancerous disease. C. Dysplasia. For cancer. The concept of cancer in situ and early cancer. Forms of growth of malignant tumors. The assessment of the prevalence of the process in stages and the TNM system. Preclinical and clinical phases of developing cancer. The pathogenesis of symptoms of malignant neoplasms. The influence of previous diseases and the associated infection on the clinical picture of cancer. Classification of treatment methods. The principles of radical surgical interventions. The concept of "anatomical zones", the principle of fallarrest. The basucs of operability and resectability. Palliative surgery. Methods of radiation therapy of malignant tumors. Radiosensitive and radioresistant tumors. Classification of anticancer drugs-Mechanism of action. Sensitivity of malignant tumors to chemo-therapeutic drugs. Indications for chemotherapy treatment. Contraindications to chemotherapy. Principles of chemotherapy. Adjuvant and neoadjuvant chemotherapy. Novel methods of systemic treatment. |

Pain and anesthesia in cancer. Rehabilitation of cancer patients. Deontology in Oncology.

Acute and chronic pain syndrome. Assessment of pain intensity and effectiveness of pain management. Treatment of acute and chronic pain syndromes. The principles of deontology in Oncology. Types of higher nervous activity and behavioral responses of the patient. Doctor's relationship with different categories of cancer patients. Motives of refusal of patients from treatment. Patients with common forms of malignant tumors. Basics of palliative medicine. Informing relatives. Cancerophobia.

II. Radiation therapy

2.1 General issues of radiation therapy

The organization of radiological services and radiation safety. Leading international and domestic scientific communities in the field of medical radiology. Russian Association of radiation oncologists. Leading research radiological centers in Russia and abroad. The organization of departments of radiotherapy in the oncological dispensaries. The structure and staffing of the offices of radiation therapy. Accounting and reporting documentation in the Department. Structure of matter. Model of the atom: mass, charge, electron shell. Radionuclides. Open and closed radionuclides. Halflife. Natural and artificial radionuclides. Types of interaction of ionizing radiation with the substance. Feature With 60. Distribution of different types of ionizing radiation in the substance and biological tissue. Leading radiation-chemical reaction and changes in cell structures. Lethal, sublethal and potentially lethal damage to cells. The oxygen effect. Radiation reactions, General and local. Factors affecting the body's response to radiation. Radiation dose. Exposure, equivalent, effective and absorbed dose units. Dose field. Isodose curves. Radiation safety. Deterministic and stochastic effects. Methods of dosimetry of ionizing radiation. Clinical dosimetry, dosimetry protection, individual dosimetry. Classification of methods of radiation therapy by the method of summing the dose of ionizing radiation. Remote and contact methods of radiation therapy. Features dose distribution in the human body with different methods of radiotherapy.

2.2 Principles of radiation therapy. Quality assurance of radiation therapy

Requirements for radiation therapy of malignant tumors: the basic principle of radiation therapy of malignant tumors-bringing the optimal possible dose to the tumor with minimal impact on the surrounding healthy tissues; timely commencement of treatment at the earliest possible stage; the choice of the most optimal method of irradiation; simultaneous effect on the primary tumor and regional metastasis zones. The course of radiation therapy should be as radical as possible to avoid repeated courses. Periods of radiation therapy: pre-radiation, radiation and post-radiation. Indications for radiation therapy of malignant tumors. Contraindications to radiation therapy of malignant tumors. Preparation of the patient for radiation therapy: physiological and psychological preparation. Planning radiation therapy. CT-simulator, 3D planning system. Contouring of irradiation volumes. Production of topographic and dosimetric maps on the planning system. The purpose of radiation therapy: radical, palliative and symptomatic. Combined and complex treatment of malignant neoplasms. Problems of preoperative and postoperative irradiation. Determination of the total focal dose depending on the histological structure and features of tumor growth. Assessment of tolerance of neighboring organs and tissues. The choice and the mode of fractionation of doses in exposure.

2.3 Radiation therapy forselected malignant tumors

Radiation therapy for malignant tumors of the head and neck. Features and place of radiation therapy in the treatment of squamous cell skin cancer, basal cell carcinoma and melanoma. Tactics of radiation therapy in the treatment of thyroid cancer. Using the method of selective accumulation isotopes.

Larynx cancer. Tactics of radiation and combined treatment. Radiation therapy of tumors of the oral cavity and pharynx. Relief of radiation epithelium phenomena. Lung cancer. Indications for radiation therapy, combined and complex treatment. Traditional and non-traditional modes of dose fractionation. Complications of radiation therapy. Esophagus cancer. Radiation and combined treatment. Traditional and non-traditional modes of dose fractionation. Complications of radiation therapy. Breast cancer. The choice of the volume of radiation therapy depending on the prevalence of tumor process, surgery and prognostic factors. Place of radiation therapy in combined and complex treatment of breast cancer. Brain tumor. Radiation therapy of primary tumors and metastases. Radiation therapy in the combined treatment of tumors of the Central nervous system. The modes of dose fractionation. Complications of radiation therapy.

Stomach cancer. Tactics of radiation therapy in independent and combined and complex treatment. Determination of irradiation

volumes in combined treatment of Hodgkin's lymphoma and non-Hodgkin's lymphomas. Combined radiation therapy and combined treatment for cancer of the cervix and uterus.

<u>Radiation therapy of malignant tumors in children.</u> Features, place and volume of radiation therapy in medulloblastoma of the brain. malignant lymphomas, neuroblastoma, Wilms tumors, osteogenic sarcoma, Ewing sarcoma, soft tissue sarcomas, retinoblastoma.

II. Most frequent malignancies

3.1 Malignant neoplasms of abdominal organs

<u>Esophagus cancer</u>. Statistics and epidemiology. Precancerous condition. The clinical picture of esophageal cancer. The role of radiation and endoscopic methods in diagnosis. Differential diagnosis. Methods of treatment (surgical, radiation, combined and complex treatment), indications depending on the location and prevalence of the tumor process. Long-term results and forecast.

Stomach cancer. Statistics and epidemiology. Precancerous diseases of the stomach, therapeutic tactics. Classification of gastric cancer. Ways of regional gastric cancer metastasis (classification of the Japanese society for the study of gastric cancer). Primary and clarifying the diagnosis. Surgical treatment: indications for certain types of surgical interventions, their volume, combined operations. The role of the extended lymphadenectomy. Treatment of early forms of gastric cancer (organ-sparing interventions, endoscopic treatment, PDT). Complicated stomach cancer - clinical picture, treatment tactics. Recurrence of gastric cancer-diagnostic and therapeutic tactics. Cancer of the operated stomach. Opportunities for radiation and drug therapy in gastric cancer. Immediate and long-term results of treatment, prognosis.

Cancer of the colon and rectum. Statistics and epidemiology. Polyps and villi tumors of the colon as a precancerous disease, therapeutic tactics. Clinic of cancer of the blind, colon and rectum, depending on the location and form of tumor growth. Features of metastasis. Multiple primary cancer of the colon. Complicated by colon cancer, treatment tactics. Principles of surgical treatment of cancer of the blind, colon and rectum. The volume of surgical interventions. Sphincter-preserving surgery. The role of radiation therapy in the treatment of rectal cancer. Combined treatment of rectal cancer. Adjuvant chemotherapy for colon cancer. Long-term results of treatment and prognosis. Therapeutic tactics in solitary metastases in the liver and lungs.

<u>Tumors of the bilio-pancreato-duodenal zone.</u> Statistics. The syndrome of mechanical jaundice. Differential diagnosis of jaundices. Ultrasound, computed tomography and angiography in the

| | | differential diagnosis of tumors of the bilio-pancreato-duodenal zone. Methods of their treatment. Palliative and radical treatment of pancreatic head cancer. The possibility of conservative therapy. The results of treatment and prognosis. Liver tumor. Statistics. Primary and metastatic tumors of the liver. Epidemiology and histogenesis of primary liver cancer. The role of special methods in the diagnosis of liver tumors. The value of alphafetoprotein in the differential diagnosis. Methods of treatment of primary liver cancer. The results and prognosis. Retroperitoneal tumors. Classification, histogenesis. Features of clinical course. The role of ultrasound and computed tomography in diagnosis. Treatments pogranich retroperitoneal tumors: surgery, radiation, drugs. Therapeutic tactics in recurrence of the disease. |
|-----|--|---|
| 3.2 | Malignant lymphomas | Long-term results of treatment and prognosis Malignant lymphoma. Features of clinical course. Classification. Diagnostic method. Principle of treatment. Hodgkin's lymphoma and non-Hodgkin's lymphomas (NHL). Morbidity. Classification. Clinic. Histological variants of Hodgkin's lymphoma and NHL. The role of modern methods in the diagnosis and evaluation of the prevalence of the process. Treatment. prognosis |
| 3.3 | Malignant tumors of skin | Morbidity. Contributing factor. Facultative and obligate precancer of the skin. Cancer prevention measures. Histological varieties (basal cell carcinoma, squamous cell carcinoma). Stages of skin cancer. Clinical variants of basal cell carcinoma and squamous cell carcinoma. Methods of examination of patients (examination, palpation, biopsy). Treatment of skin cancer (radiation, cryogenic, surgical, medicinal, etc.). Immediate and long-term results. Melanoma. Epidemiology of melanoma. Factors contributing to malignization, measures of prevention of malignancy, growth Characteristics and metastasis. Stages. Clinical characteristic. Signs of malignancy nevus. The ABCDE rule Methods a special survey (radioisotope diagnostics, thermography). Indications, contraindications and methods of sampling for cytological and histological studies. Treatment. Results |
| 3.4 | Malignant neoplasms of the chest | Morbidity. Age-sexual characteristics. Contributing factor. Prevention. Pathological characteristics. Forms of growth. The concept of Central and peripheral cancer. Histological structure. Regularities of metastasis. The division into stages. Clinical picture. Preclinical and clinical periods. Semiotics of lung cancer. Clinical variants of Central and peripheral cancer. Differential diagnosis. |

Diagnostics. Alarm. Evaluation of anamnesis and physical examination data. Cytological examination of sputum. The main radiological symptoms. Signs of atelectasis. The system further examination for suspected cancer of the Central and peripheral. The value of computed tomography and bronchoscopy. Computer tomography. Bronchography. Transthoracic puncture and catheterization of the bronchial tubes. Early detection of lung cancer, the value of fluoroscopy. Organization of screening. High-risk groups. General principles of treatment: surgical, radiation, chemotherapy. The choice of treatment methods depending on the tumor localization, stage and histological structure. Combined treatment

3.5 Breast cancer

Morbidity. The role of hormonal disorders. Other risk factors; family history, poor nutrition. Mastopathies. Etiopathogenesis. Classification. Localized and diffuse forms. Clinical picture. The division of the PA stage. Clinic of typical (nodal) form. The differential diagnosis of localized mastopathy and fibroadenoma. Patient examination. Screening for breast cancer. mammography. The role of the examination rooms. Preventive examination. Principles of treatment of breast cancer. The choice of method depending on the stage and shape of the tumor. Types of radical operations. Indications for combined and complex treatment. The value adjuvant chemotherapy. Treatment of infiltrative forms of cancer. Remote result. Dependence on the stage of the disease. The system of prophylactic medical examination, rehabilitation and examination of ability to work.

3.6 Tumors of head and neck

Cancer of the lower lip. Statistics. Precancerous condition. Classification. Clinic and diagnostics. Growth form. Features of metastasis. Treatment of the primary tumor and metastases. Treatment of relapses. Long-term results and prognosis.

Malignant tumors of the oral mucosa (cancer of the tongue, the bottom of the mouth, cheek, palate). Statistics. The role of environmental factors in tumor development. Precancerous condition. Clinic, medical tactics. Features of metastasis. Diagnostics. Modern treatment method. Long-term results and prognosis.

Tumors of the salivary glands. Classification (benign and malignant tumors). Clinic and diagnostics. Features of surgical and combined treatment. Long-term results and prognosis

Malignant tumors of the upper respiratory tract. Laryngeal cancer: statistics, pre-tumor States. Clinic and diagnostics taking into account localization of tumor process (cancer of vestibular

Department, vocal folds, podskladochnogo Department). Treatment (surgical, radiation, combined). Organ-protective approach and reconstructive plastic surgery for laryngeal cancer. Possibilities of drug therapy, photodynamic therapy. The treatment of regional metastases. Prognosis and results of treatment. Malignant tumors of the oral cavity, nasal cavity and paranasal sinuses. Clinic, diagnostics, treatment. The results of treatment and prognosis. Malignant tumors of the thyroid gland. Clinical morphological classification. Clinical course. Features of the flow of different forms of cancer. Regularities of metastasis. Diagnosis (clinical, radiation, cytological), the use of other special methods of research. Methods of treatment and prognosis. **Tumors of the neck.** Classification. Unorganize of neck tumor (neurogenic, mesenchymal, disampingnya). Diagnostics. Special methods of diagnosis. Principles of treatment (surgical, radiation, combined). Cancer metastases to the lymph nodes of the neck without identifying the primary tumor. Diagnostic and therapeutic tactics. Basics of angiography and morphological research, treatment. Remote result Bone tumor. Classification. Morbidity. Pathologo-anatomical characteristics. The main types of malignant tumors: osteogenic sarcoma, Ewing's sarcoma, chondrosarcoma, secondary malignant tumors. Clinical picture. Diagnostics. "Alarm." The main radiological symptoms. Radioisotope diagnostics. The value of

3.7 Sarcomas of soft tissues and bones

morphological research. Surgical, radiation, combined and complex treatment. Save operations. Remote result. Clinical examination of the cured.

Tumors of the soft tissues. Morbidity. Pathologo-anatomical characteristics. Localization. Clinical picture. "Alarms." Differential diagnosis. Examination methods: ultrasound, computed tomography and magnetic resonance imaging. Value

5.2. Sections and types of studies

| Nº | Names of the section in discipline | L | СР | UW | Total hrs |
|----|------------------------------------|---|----|----|--------------|
| 1 | General oncology | | | | |

| 1.1 | General issues of clinical oncology | 2 | 5 | 3 | 10 |
|-----|---|----|----|----|-----|
| 2 | Radiation therapy | | | | |
| 2.1 | General issues of radiation therapy | 2 | 5 | 3 | 10 |
| 2.2 | Principles of radiation therapy. Assurance of quality assurance of radiation therapy | 4 | 5 | 3 | 12 |
| 2.3 | Radiation therapy of the main localization of malignant tumors. Features of radiotherapy in childhood | | 5 | 2 | 7 |
| 3 | Most frequent malignancies | | | | |
| 3.1 | Malignant neoplasms of the abdominal organs | 4 | 5 | 6 | 15 |
| 3.2 | Malignant lymphoma | 2 | 5 | 4 | 11 |
| 3.3 | Malignant tumors of the skin | 2 | 5 | 3 | 10 |
| 3.4 | Malignant neoplasm of the thorax | 2 | 5 | 3 | 10 |
| 3.5 | Breast cancer | 2 | 5 | 4 | 11 |
| 3.6 | Tumors of the head and neck | 2 | 5 | 5 | 12 |
| 3.7 | Sarcomas of soft tissues and bones | _ | | | |
| | Total | 22 | 50 | 36 | 108 |

6 Interactive forms of CLINICAL PRACTICAL CLASSes

| № п/ п | Names of the section of discipline | Interactive form of conducting classes | Duration (hrs.) |
|--------------|--|---|-----------------|
| 2.2 | Principles of radiation therapy. Assurance of quality assurance of radiation therapy | Business game "Preparation a cancer patient for the external beam radiation therapy» | 2 |
| 3.1 | Malignant neoplasms of the abdominal organs | Simulation training (palpation of tumors of the rectum) | 2 |
| 3.5 | Breast cancer | Simulation training (methods of examination of mammary glands) | 2 |

| Total (hrs.) | 6 |
|--------------|----|
| Total (%) | 8% |

7. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| № | Name of the course section | Types of the unsupervised work | Forms of control |
|-----|---|---|------------------|
| | I. ge | neral oncology | |
| 1.1 | General issues of clinical oncology | Preparation for clinical practical training (work with literature) | Test |
| | | Preparation of abstracts, reports and presentations | Discussion |
| | II. ra | diation therapy | <u> </u> |
| 2.1 | General issues of radiation therapy Principles of radiation therapy. Quality assurance of radiation therapy | Preparation for clinical practical training (work with literature) | test |
| 2.3 | Radiation therapy for selected malignant tumors | Preparation of abstracts, reports and presentations | discussions |
| | III. Most f | requent malignancies | |
| 3.1 | Malignant neoplasms of the gastrointestinal tract | | |
| 3.2 | Malignant lymphoma Malignant tumors of the skin. Melanoma | Preparation for clinical practical training (work with literature). | test |
| 3.4 | Malignant neoplasms of the chest | Preparation of abstracts, | |
| 3.5 | Breast cancer | reports and presentations | discussion |
| 3.6 | Tumors of the head and neck | | |
| 3.7 | Sarcomas of soft tissues and bones. | | |

8. FORM OF CONTROL

8.1. Forms of current control

oral (interview, report, clinical review);

□ written (check tests, essays, problem solving).

The list of topics of abstracts, collections of tests and situational tasks is given in the section "Fund evaluation tools»

8.2. Forms of the interim assessment (pass/fail test, examination, term paper) Interview.

The stages of the competition

Stage 1 – interview test questions

Stage 2 – decision of situational tasks

Stage 3-test verification

Questions to offset are given in the section "Fund of Estimates for Conducting Current Control and Intermediate Attestation of Trainees"

9.Literature

9.1.Compulsory literature

- 1. Atlas of cancer operations [Electronic resource]: Atlas/ ed.: V. I. Chissov, A. H. Trachtenberg, A. I. Paches. -Moscow: GEOTAR-Media, 2008. -632 p.: Il. Mode of access: http://www.studmedlib.ru/.
- 2. Davydov M. I. Oncology [Text]: textbook. for universities / M. I. Davydov, S. H. Ghanaians. Moscow: GEOTAR-Media, 2013. 912 p.: Col. slime.
- 3. Velsher L. Z. Clinical Oncology. Selected lectures [Electronic resource] / L. Z. Velsher, B. I. Polyakov, S. B. Peterson, M.: GEOTAR-Media, 2014. Mode of access: http://www.studmedlib.ru
- 4. Radiation diagnostics and therapy [Electronic resource]: a textbook for universities: in 2 t./ S. K. Ternovoy [and others]. -Moscow: GEOTAR-Media, 2014. Mode of access: http://www.studmedlib.ru/.
- 5. Trufanov G. E. Radiation therapy [Electronic resource]: textbook / [G. E. Trufanov, M. A. Asaturyan, G. M. Zharinov, V. N. English]; edited by G. E. Trufanova. M.: GEOTAR-Media, 2013. 208 p.: Il. Mode of access: http://www.studmedlib.ru/
- 6. Essentials of Clinical Examination Handbook. [Электронный ресурс]/ Y. Shi [и др.]. 8th ed.: Thieme, 2018- URL: https://medone-education.thieme.com/ebooks/2251929#/ebook_2251929_SL84831974
- 7. Давыдов М.И. Онкология [Электронный ресурс] : учебник для ВУЗов/ М.И. Давыдов, Ш. Х. Ганцев. -Москва: ГЭОТАР-Медиа, 2013. -920 с.- URL: http://www.studentlibrary.ru/book/ISBN9785970427194.html
- 8. Лучевая диагностика и терапия [Электронный ресурс] : В 2-х томах: учебник, Т.1 : Общая лучевая диагностика/ С. К. Терновой [и др.]. -Москва: ГЭОТАР-Медиа, 2014. -232 с.: ил.- URL: http://www.studmedlib.ru/book/ISBN9785970429891.html

- 9. Лучевая диагностика и терапия [Электронный ресурс] : В 2-х томах: учебник, Т.2 : Частная лучевая диагностика/ С. К. Терновой . -Москва: ГЭОТАР-Медиа, 2014. 356 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970429907.html
- 10. Черенков В.Г. Онкология [Электронный ресурс] : учебник/ В. Г. Черенков. -4-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2017. -512 с.- URL: http://www.studentlibrary.ru/book/ISBN9785970440919.html

9.2. Supplementary literature

- Oncology [Electronic resource]: national. hands'. / ed.: V. I. Chissov, M. I. Davydov. -Moscow: GEOTAR-Media, 2013. - 1072 p. - accessed: http://www.studmedlib.ru/Петренко V. V. All about cancer and tumors [Text] / V. V. Petrenko, E. E. Deryugin. - 4th ed. - Moscow: Amrita-Russ, 2012. - 111 p.
- 2. Kamyshnikov V. S. Tumor Markers. Methods of determination. Reference values. Interpretation of tests [Text]: [Handbook] / V. S. Kamyshnikov. 4th ed. Moscow: Medpress-inform, 2015. 120 p.: table.
- 3. Diagnostics and therapy of oncological diseases [Text] / D. Kucer [et al.]; transl.from English. edited by: S. I. Tkachev, L. V. Manziuk. Moscow: Practice. medicine, 2012. 298 p. (reference manual).
- 4. Outpatient Oncology [Electronic resource]: a guide for physicians / S. H. Ghanaians, V. V. starinsky, I. R. Rakhmatullina, L. N. Kudryashova, R. Z. Sultanov, D. D. Sakaeva. 2nd ed., Rev. and extra M.: GEOTAR-Media, 2014. 448 p.: Il.- Mode of access: http://www.studmedlib.ru/.
- 5. Kuzin M. I. Surgical diseases [Electronic resource]: the textbook / under the editorship of M. I. Kuzina. 4th ed., Rev. and extra M.: GEOTAR-Media, 2017.: slime. Mode of access: http://www.studmedlib.ru/.
- 6. Ermolina, T. A. Hardware methods of radiation therapy [Electronic resource]: textbook / T. A. Ermolina, N. A. Martynov, O. E. Karyakina, A. V. Krasilnikov. Arkhangelsk: SSMU, 2017. Mode of access: http://lib.nsmu.ru/lib/readers/elektronnaya-biblioteka.php
- 7. Radiation Atlas of human anatomy [Electronic resource]/ V. I. Filimonov [et al.]. Moscow: GEOTAR-Media, 2010. -452 p.: Il. Mode of access: http://www.studmedlib.ru/.
- 8. Oncology [Electronic resource]: National manual. Summary edition / sub-publication edited by V. I. Chissov, M. I. Davydov, M.: GEOTAR-Media, 2017. http://www.studentlibrary.ru/book/ISBN9785970439821.html
- Cherenkov V. G. Oncology [Electronic resource]: textbook / V. G. Shanks. 4th ed., Spanish. and extra - M.: GEOTAR-Media, 2017. http://www.studentlibrary.ru/book/ISBN9785970440919.html
- Cherenkov V. G. Oncology. Tests with elements of visualization [Electronic resource] / Cherenkov V. G. M.: GEOTAR-Media, 2017. http://www.studentlibrary.ru/book/ISBN9785970440926.html

- 11. Radiation diagnostics [Electronic resource]: a textbook / G. E. Trufanov and others; ed. by G. E. Trufanova. M.: GEOTAR-Media, 2016. http://www.studentlibrary.ru/book/ISBN9785970439609.html
- 12. Surgical diseases [Electronic resource]: the textbook / under the editorship of M. I. Kuzin. 4th ed., Rev. and extra M.: GEOTAR-Media, 2017. http://www.studentlibrary.ru/book/ISBN9785970439845.html
- 13. Steffers G. General Pathology and Internal Medicine for Physical Therapists [Электронныйресурс]: учебник/ G. Steffers, S. Credner. -1st ed.: Thieme, 2012- URL: https://medone-education.thieme.com/ebooks/2093236?fromSearch=true#/ebook 2093236 SL80475533

9.3 List of the Internet resources required for mastering of the course

- 1. The Federal medical library's site (ΦЭΜБ) http://www.femb.ru/feml?1314736
- 2. RosOncoWeb http://www.rosoncoweb.ru.
- 3. Cancer networkhttp://www.cancernetwork.com
- 4. CA cancer for clinicians free access http://caonline.amcancersoc.org.
- 5. Journal of clinical oncology http://jco.ascopubs.org
- 6. Cancer network http://www.cancernetwork.com/
- 7. Medscape oncology https://www.medscape.com/oncology

9.4 List of the information technologies used in the educational process of the course

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

Наименование помещений для проведения Адрес (местоположение) помещений для всех видов учебной деятельности, проведения всех видов учебной деятельности, предусмотренной учебным планом, в том предусмотренной учебным планом (в случае числе помещения для самостоятельной реализации ФГБОУ ВО СГМУ (г. Архангельск) работы, с указанием перечня основного Минздрава России программы в сетевой форме оборудования, учебно-наглядных пособий дополнительно указывается наименование и используемого программного обеспечения организации, с которой заключен договор) Учебная аудитория для проведения занятий 163000, г. Архангельск, просп. Троицкий, д. 51 лекшионного типа No 2102 имени Н.П.Бычихина, административный учебный корпус, 1 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 300 мест. б) наборы демонстрационного оборудования проектор, моноблок, экран, колонки в) перечень учебно-наглядных пособий: схемы, таблицы г) используемое программное обеспечение: KasperskyendpointSecurity. Номерлицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server

Номердокумента 11001793

Trafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского групповых и индивидуальных консультаций, текущего контроля промежуточной аттестации

№ 11 Лаборатория радиологического корпуса, 3 этаж

Договор № 336 от 14.04.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельский клинический онкологический диспансер». Договора – 5 Срок действия Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

наборы демонстрационного оборудования

ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, табличные и справочные материалы, негатоскоп стационарный, фотоальбомов по диагностике набор визуальных локализаций рака, набор учебных видеофильмов, приборы для забора биопсийного материала, сшивающие аппараты

г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server Номердокумента 11001793

Trafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского групповых И индивидуальных консультаций, текущего контроля промежуточной аттестации

No 16 Лаборатория радиологического корпуса, 3 этаж

Договор № 336 от 14.04.2017 года об практической организации подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельский клинический онкологический диспансер».

163045, Архангельская область, г. Архангельск, пр. Обводный канал, д. 145 корп. 5, строение 1

163045, Архангельская область, г. Архангельск, пр. Обводный канал, д. 145, корп. 5, строение 1

Срок действия Договора - 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования

ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, табличные и справочные материалы, негатоскоп стационарный, набор фотоальбомов по диагностике визуальных локализаций рака, набор учебных видеофильмов, приборы для забора биопсийного материала; сшивающие аппараты

г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарного типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации

№ 210 учебный корпус, 2 этаж

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихсяна 14 мест, основное оборудование,

б) наборы демонстрационного оборудования

ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, табличные и справочные материалы, негатоскоп стационарный, набор фотоальбомов по диагностике визуальных локализаций рака, набор учебных видеофильмов

г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

163001, г. Архангельск, просп. Троицкий, д. 180

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education "NORTHERN STATE MEDICAL UNIVERSITY" of the Ministry of Healthcare of the Russian Federation

Глава 1 APPROVED

Глава 2 Dean of the International

Faculty

Глава 3 of General Practitioner

Шер Глава 5 А

Sherstennikov

a

Глава 6 June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline Traumatology, Orthopedics

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) **V-VI / 10, 11**

Form of the interim assessment **Examination**

Department of Traumatology, Orthopedics and Military Field Surgery

Discipline workload 216 (academic hours) / 6 (credits)

Approved at the department meeting

Minutes No.

June 20th 2020

Head of the department

S.V. Bragina

Author and compiler:

Bragina Svetlana Valentinovna, Associate Professor of the Department of Traumatology, Orthopedics and Military Field Surgery, Candidate of Medical Sciences

Arkhangelsk, 2020

1. Purpose and objectives of the course

| Goal of the discipline | The goal of the discipline is to teach students to acquire competencies and to navigate in the issues of injuries and diseases of the musculoskeletal system, to provide first aid in case of emergency conditions in emergency cases at the stages of medical evacuation, as well as in places of mass destruction. |
|-------------------------|--|
| Tasks of the discipline | - training in the organization of trauma and orthopedic care; |
| | - assimilation of the first aid in emergency conditions at the prehospital stage; |
| | - training to provide medical care to the population in extreme conditions of epidemics, in the centers of mass destruction; |
| | - study of the prevention of injuries and orthopedic diseases, rehabilitation of patients with pathology of the musculoskeletal system; |
| | - study of the etiology, pathogenesis of damage and diseases the musculoskeletal system; |
| | - study of the methods of examination, diagnosis of injuries and diseases of the musculoskeletal system; |
| | - teaching methods of providing medical care and treatment for people with various injuries and diseases of the musculoskeletal system, first medical aid using therapeutic and surgical methods; |
| | - development of practical exercises and skills that allow to a future doctor to understand quickly an urgent situation, to outline a plan of emergency and urgent medical and diagnostic measures; |
| | - training about techniques and methods of providing assistance to the injured people giving the first aid in emergency situations; |
| | - development of practical skills in providing emergency and emergency care for various types of injuries and subcutaneous injuries of the musculoskeletal system; |

| - conducting medical evacuation in emergency situations and |
|---|
| providing medical assistance to the population in extreme conditions, in the centers of mass destruction; |
| |

2. Location of the course within the educational program (EP)

The program is developed following the requirements of Federal State Education Standard (FSES3+) the base portion (block 1 "Disciplines Traumatology, Orthopaedics") for higher education in the field of 31.05.01 (General medicine).

Cycle (section) of the EP, to which this discipline applies - medical, professional.

Disciplines, on wich knowledge of Trumataulogy and Ortopedics is based: Human Anatomy and Morbid Anatomy, Normal and Pathological Physiology, Microbiology and Immunology, Pharmacology, Operative Surgery and Topographic Anatomy, General Surgery, Neurology, Anesthesiology and Resuscitation, X-ray Diagnostics, Public Health and Health Organization.

3. List of planned learning outcomes of the discipline (module) in connection to the planned outcomes at completion of the educational program

| Codes of | | | | | |
|-----------------|--|---|--|--|--|
| developed | | Competences | | | |
| competences | | | | | |
| | Know | Be able to (can) | Master (be a master in) | | |
| GCC№ | Gene | ral cultural competence | 2 | | |
| GP № | (| General professional | | | |
| PC -№ | | Professional competer | nces | | |
| PC -№5 | the algorithm and the rules of the physical examination, clinical and laboratory examination | Analyzing the results of modern laboratory and instrumental studies, the morphological analysis of biopsy, surgical and sectional material. - Write medical records of outpatient and inpatient. | the methods of carrying out and interpreting the survey, physical examination, clinical examination, evaluation of the skills of modern laboratory and instrumental studies, the morphological analysis of biopsy and surgical material sectioned -signing card ambulatory and inpatient | | |
| PC -№6 | ICD-10 structure, goals and tasks while using it | highlight the main pathological conditions, symptoms, syndromes, entities that require the use of ICD-10 | the method of using the ICD-10 by filling out medical records | | |
| PC -№8 | etiology, pathogenesis, clinical syndromes, principles | identify and analyze clinical symptoms, syndromes; | methods of clinical diagnosis, treatment, rehabilitation and | | |

| | T | | |
|--------|--|--|---|
| | of diagnosis, treatment and rehabilitation of patients with different clinical forms of injuries and diseases | - to diagnose, prescribe treatment and rehabilitation | prevention of diseases and injuries in various nosological forms, to assess prognosis. |
| PC -№9 | the main pathological symptoms, syndromes in surgery and traumatology; - Algorithm of diagnosis (preliminary, clinical); Survey plan the main symptoms of diseases internal organs; - clinical expression of the essential Surgical syndromes; - The provision of primary medical care in the outpatient setting and a day hospital; - Rules for filling a sample of medical records; - Rules of registration of temporary disability documents. | conduct a survey patient; - To evaluate the data; - Formulate and clinical syndromic diagnosis, and outline a plan additional methods research and treatment of patients with different nosological forms in the outpatient setting and a day hospital; - Fill out a medical history; outpatient card, to evaluate the results patient surveys | general clinical methods survey (questioning, inspection, palpation, percussion, auscultation, heart rate determination of arterial properties, measurement of blood pressure); - Agoritm expanded clinical diagnosis; - An algorithm with initial diagnosis followed by referral to appropriate medical specialist Methods of clinical diagnosis, treatment, rehabilitation and prevention of diseases with different clinical forms, to assess prognosis. |
| PC №10 | clinical principles survey of surgical and therapeutic patient; - Immediate diagnosis, acute conditions; - To evaluate the data of laboratory and instrumental methods of research; - The main pathological symptoms, syndromes; Algorithm of diagnosis (preliminary, clinical); - Clinical symptoms of injuries of the musculoskeletal system, thorax, | determine the status of the patient: to collect anamnesis, conduct a survey of the patient and / or his family; - To carry out a physical examination of the patient (inspection, palpation, auscultation, blood pressure measurement, determination of the arterial pulse characteristics, etc.); - To assess the condition of the patient to make a decision about the necessity of medical attention; - To conduct an initial examination of organs | methods: an objective examination of the patient, the identification of pathological symptoms and syndromes; - Evaluate laboratory data, biochemical research methods and results of instrumental, x-ray examinations; - Algorithm deployed clinical diagnosis; - Setting algorithm preliminary diagnosis with subsequent referral to the appropriate medical specialist; - The methods of carrying out urgent measures, medical care in sudden acute disease, condition, |

| | abdomen, pelvis, head | and systems; | exacerbation of chronic |
|--------|---|--|---|
| | and the cranial cavity; | - Identified by the | diseases are not |
| | -rendering of primary | presence of the X-ray | accompanied by the threat |
| | medical care in | fracture and dislocation, | of the patient's life; |
| | sudden | free gas in the | - Indications for planned |
| | acute diseases, | abdominal cavity, | hospitalization; |
| | conditions, | hydro-pneumothorax; | |
| | exacerbation of | - Outline the scope of | |
| | chronic diseases, | further studies in | |
| | not accompanied by a | accordance with the | |
| | threat to the patient's | prognosis of the | |
| | life and do not require | disease, to confirm the | |
| | emergency health | diagnosis and obtain | |
| | care; | reliable results; | |
| | cure, | - Formulate a clinical | |
| | | diagnosis; | |
| | | - Examine patients for | |
| | | various traumatic | |
| | | injuries, with septic | |
| | | | |
| | | conditions, detect | |
| | | violations during life- | |
| | | threatening disorders in | |
| | | bleeding; | |
| | | - To carry out | |
| | | monitoring of | |
| | | hemodynamics and | |
| | | respiration. | |
| | | • | |
| PC №11 | the basic principles of | medical equipment used | primary physicians |
| PC №11 | the provision of | medical equipment used in the provision of first | diagnostic and therapeutic |
| PC №11 | the provision of medical care for | medical equipment used in the provision of first aid, to provide | diagnostic and therapeutic to provide first medical aid |
| PC №11 | the provision of medical care for urgent conditions; | medical equipment used in the provision of first aid, to provide emergency assistance in | diagnostic and therapeutic to provide first medical aid in emergency measures |
| PC №11 | the provision of medical care for urgent conditions; - The provision of | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to | diagnostic and therapeutic to provide first medical aid in emergency measures and |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life- | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the organization of | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the suitability of blood and | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; - algorithm perform basic |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the organization of medical care during | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the suitability of blood and its products to the | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; - algorithm perform basic diagnostic and therapeutic |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the organization of medical care during mass and sporting events, emergencies | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the suitability of blood and its products to the transfusion, conduct | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; - algorithm perform basic diagnostic and therapeutic pollen activities to medical care in emergency and |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the organization of medical care during mass and sporting events, emergencies and catastrophes in | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the suitability of blood and its products to the transfusion, conduct monitoring of hemodynamics and | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; - algorithm perform basic diagnostic and therapeutic pollen activities to medical care in emergency and life-threatening conditions; |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the organization of medical care during mass and sporting events, emergencies | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the suitability of blood and its products to the transfusion, conduct monitoring of hemodynamics and respiration; | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; - algorithm perform basic diagnostic and therapeutic pollen activities to medical care in emergency and life-threatening conditions; - Methods to temporarily |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the organization of medical care during mass and sporting events, emergencies and catastrophes in peacetime and in wartime; | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the suitability of blood and its products to the transfusion, conduct monitoring of hemodynamics and respiration; - To develop a | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; - algorithm perform basic diagnostic and therapeutic pollen activities to medical care in emergency and life-threatening conditions; - Methods to temporarily stop external bleeding; |
| PC №11 | the provision of medical care for urgent conditions; - The provision of emergency medical care for conditions requiring urgent medical intervention; medical assistance in emergency situations, including those involved in medical evacuation; - Characteristics of the organization of medical care during mass and sporting events, emergencies and catastrophes in peacetime and in | medical equipment used in the provision of first aid, to provide emergency assistance in cases of emergency, to carry out anti-shock event; - Identify life-threatening bleeding disorders, tourniquet, transport bus, soft and triangular bandage, enter drains through medicines and microirrigators; - To assess the suitability of blood and its products to the transfusion, conduct monitoring of hemodynamics and respiration; | diagnostic and therapeutic to provide first medical aid in emergency measures and life-threatening conditions (acute hemorrhage, respiratory failure, cardiac arrest, coma, shock), own techniques for their immediate removal; - Drawing up a plan of medical actions, procedures and techniques of manipulation in case of emergency; - algorithm perform basic diagnostic and therapeutic pollen activities to medical care in emergency and life-threatening conditions; - Methods to temporarily |

| therapeutic measures to provide first | into account the course of the disease and its | assistance in the grass (transport immobilization, |
|--|--|--|
| medical aid in emergency and life- | treatment; - To provide emergency | bandaging the wound, anesthesia). |
| threatening conditions. | first medical aid in case of emergency. | |

4. Volume of the course and types of academic work:

Total workload of the course is 6 credits.

| | Type of the academic work | Total hours | Term |
|--------------|--------------------------------------|-------------|--------|
| Discipline | | | |
| workload | Lectures (L) | 30 | 10, 11 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 60 | 10, 11 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | 33,7 | 11 |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 11 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 90 | 10, 11 |
| | Examination control (EC) | 0,3 | 11 |
| | Total course workload | 216 | 10, 11 |
| | | | |

5. Course content:

5.1. Content of the course sections

| No | Name of the course section | Content of the section | |
|----|-----------------------------------|---|--|
| 1 | 2 | 3 | |
| 1 | General questions of traumatology | | |
| | and orthopedics | | |
| | | Formation, development and achievements | |
| | | of modern traumatology and orthopedics | |
| | | Fractures. Classification, symptoms and | |
| | | diagnostics. | |
| | | Bone regeneration. Complications during | |
| | | consolidation of bone fractures. | |
| | | Basic principles of treatment bone fractures | |
| | | Rehabilitation of the patients with trauma or | |
| | | orthopedic disease. | |
| | | X-ray diagnosis of musculoskeletal injuries | |
| | | and diseases. | |
| | | Methods of examination in traumatology and | |
| | | orthopedics. Meeting with the clinic. | |
| | | Curation of patients. Bypass trauma and | |
| | | orthopedic department. | |
| | | The cast and overlay technique. Skeletal | |
| | | traction. X-ray examination in traumatology | |
| | | and orthopedics. | |
| | | Transport immobilization. Closed injuries of | |
| | | the soft tissues. | |

| 2 | Fractures and damage to the limbs | |
|---|--|---|
| | and the same of th | Traumatic dislocation of the joints of the |
| | | limbs. |
| | | Chronic osteomyelitis. Modern surgical |
| | | treatment. |
| | | Fractures and dislocations of bones of |
| | | shoulder and upper arm. Classification. |
| | | Clinic. Diagnostics. Treatment. |
| | | Fractures and dislocations of the hip. Damage |
| | | to the knee (ligament, meniscus). |
| | | Classification. Clinic. Diagnostics. |
| | | Treatment. Fractures and dislocations of bones of the |
| | | |
| | | lower leg and foot. Classification. Clinic. |
| | | Diagnostics. Treatment. Outpatient care in the trauma section. |
| 2 | Eventures and demage to the spine | Outpatient care in the trauma section. |
| 3 | Fractures and damage to the spine | |
| | and pelvis | Demons to the spins Classici (' Cl') |
| | | Damage to the spine. Classification. Clinic. |
| | | Diagnostics. Treatment Damage to the pelvis. Classification. Clinic. |
| | | Diagnostics. Treatment |
| 4 | Dolytrauma | Diagnostics. Treatment |
| 4 | Polytrauma | Multiple and associated demages, Traumatic |
| | | Multiple and associated damages. Traumatic disease |
| | | Traumatic shock. Crush syndrome. The |
| | | amount of aid during medical evacuation. |
| | | Open and gunshot fractures. Classification. |
| | | Clinic. Diagnostics. Treatment. |
| 5 | Thermal lesions | |
| | | Thermal lesions. Burn disease. Burns and |
| | | frostbite. Total cooling. Electrocution. |
| 6 | Orthopaedic disease | rostore. Total coomig. Electrocation. |
| | OTHIO PROGRESSION | Systemic diseases of the musculoskeletal |
| | | system. |
| | | Degenerative-dystrophic diseases of the |
| | | spine and joints. |
| | | Deforming arthrosis. |
| | | Osteochondropathy. Tumours of bones. |
| | | Osteoporosis and osteopenia in traumatology |
| | | and orthopedics. |
| | | Amputation and disarticulation. Prosthetics |
| | | and orthotics in the pathology of the |
| | | musculoskeletal system. |
| | | Scoliosis. |
| | | Arthroplasty. Indications and |
| | | contraindications. Types of prostheses. |
| | | Complications. |
| | | Orthopedic static disease of feet. |
| | | Congenital dislocation of the hip. Congenital |

5.2. Course sections and types of studies

| No | Name of the course section | L | СР | Self- studies | Total hours |
|----|---|----|----|------------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | General questions of traumatology and orthopedics | 10 | 15 | 12 | 37 |
| 2 | Fractures and damage to the limbs | 4 | 25 | 15 | 44 |
| 3 | Fractures and damage to the spine and pelvis | - | 10 | 5 | 15 |
| 4 | Polytrauma | 4 | 10 | 7 | 21 |
| 5 | Thermal lesions | 2 | 5 | 4 | 11 |
| 6 | Orthopaedic disease | 14 | 20 | 18 | 52 |
| | Total | 34 | 85 | 61 | 180 |

6. Interactive forms of studies

Active and interactive forms of work used in the educational process: individualization and flexibility of elective through outside of class, independent work, computer simulations, business and role-playing, brainstorming, discussion, case method (analysis of situations), simulation (role-playing game design - construction, development of methodological or technical solutions), small group work, case studies, psychological and other trainings, creative tasks, case studies with the standards of responses, multimedia training.

Methods based on the latest achievements of science and information technology in education are used in the process of teaching. They are aimed to improve the quality of training through the development of students' creativity and self-reliance. For this purpose are used:

- interactive forms of holding seminars and clinical dissections
- training form of practical training
- lectures on telemedicine (or on CD ROM), the country's leading experts.

| No | Name of the course section | Interactive forms of studies | Duration (hours) |
|----|---|---|------------------|
| 1 | General questions of traumatology and orthopedics | Business and role-playing, case studies, psychological or other training, situational problems with the standards of answers. The method of small groups. Discussion on employment. Analysis of specific clinical situations. | 2 |
| 2 | Fractures and damage to the limbs | Business and role-playing, case studies, psychological or other training, situational problems with the standards of answers. The method of small groups. Discussion on employment. Analysis of specific clinical situations. | 2 |
| 3 | Fractures and damage to the spine and pelvis | Business and role-playing, case studies, psychological or other training, | 3 |

| | | situational problems with the standards | |
|---|-----------------------------|--|-----|
| | | of answers. The method of small groups. | |
| | | Discussion on employment. Analysis of | |
| | | specific clinical situations. | |
| 4 | Polytrauma | Business and role-playing, case studies, | 4 |
| 4 | 1 Olyttauma | psychological or other training, | 4 |
| | | situational problems with the standards | |
| | | of answers. The method of small groups. | |
| | | 0 1 | |
| | | Discussion on employment. Analysis of | |
| _ | 771 11 ' 337 1 1 | specific clinical situations. | 1 |
| 5 | Thermal lesions. Wounds and | Business and role-playing, case studies, | 1 |
| | wound infection | psychological or other training, | |
| | | situational problems with the standards | |
| | | of answers. The method of small groups. | |
| | | Discussion on employment. Analysis of | |
| | | specific clinical situations. | |
| 6 | Orthopaedic disease | Business and role-playing, case studies, | 2 |
| | | psychological or other training, | |
| | | situational problems with the standards | |
| | | of answers. The method of small groups. | |
| | | Discussion on employment. Analysis of | |
| | | specific clinical situations. | |
| | | Total (hours) | 12 |
| | | Total (% of in-class learning) | 10% |

7. The list of educational and methodological support for independent work of students in the discipline, including using the capabilities of e-learning, distance learning technologies (SDL Moodle)

| No | Name of the course section | Types of self-studies | Forms of control |
|----|---|--|--|
| 1 | General questions of traumatology and orthopedics | The study of educational material for primary and secondary literature, lecture material. Prepare a list of terminology (glossary), abstracts and reports with presentations on themes, false joint. Modern technologies of immobilizing the limb segments. Quantitative indicators of an X-ray anatomical relationships in the hip joint. Traumatic bursitis, clinic, diagnostics, treatment. Assisting victims with open lesions on the wrist tendons of the first stages of medical and pre-medical and medical care. Preventing tetanus. Prevention of rabies and tick-borne encephalitis. Students have testing on the topic: "Methodology for examining patients with diseases and injuries of the musculoskeletal system" SDL Moodle. Work with questions for self-monitoring | Check essays, reports and presentations. Hearing and group discussion. Checking the results of working with tests, questions for selfmonitoring in SDL Moodle. |

| | T | 1 | |
|---|--|---|--|
| | | on the topic "Clinical examination | |
| | | methods in traumatology and | |
| | | orthopedics" in the SDL Moodle. | |
| 2 | Fractures and damage to the limbs | Preparation of abstracts and reports with presentations on the theme: Intramedullary metalosteosynthesis blocking. Operative treatment of scapular fracture. Operative treatment of habitual dislocation of the shoulder. Bennett's fracture-dislocations. The tunnel syndromes in lesions of the forearm in the bottom third. The medial femoral neck fractures in elderly patients. Damage to the menisci of the knee joint. Fracture of the talus. Dislocations in the joints of the foot. Students have testing on the topics: "Damage to the lower leg and foot." in | Check essays, reports and presentations. Hearing and group discussion. Checking the results of working with tests, questions for selfmonitoring in SDL Moodle. |
| | | the SDL Moodle. | |
| 3 | Fractures and damage to the spine and pelvis | Preparation of abstracts and reports with presentations on the themes: Fractures of the acetabulum of the pelvis cavity. Fracture-dislocations of cervical spine. Extrafocal osteosynthesis of pelvic fractures. Students have testing on the topic: "Damage to the spine and pelvis" in the SDL Moodle. | Check essays, reports and presentations. Hearing and group discussion. Checking the results of working with tests, questions for selfmonitoring in SDL Moodle. |
| 4 | Polytrauma | Preparation of abstracts, reports, presentations on the themes: Objective assessment of the severity of injury in polytrauma. Operative treatment long compartment syndrome. Primary surgical treatment for gunshot injury of the MSS. Osteosynthesis for gunshot fractures. Students have testing on the topic: "Traumatic shock", "Multiple combined injuries of the musculoskeletal system" in the SDL Moodle. | Check essays, reports and presentations. Hearing and group discussion. Checking the results of working with tests, questions for selfmonitoring in SDL Moodle. |
| 5 | Thermal lesions. Wounds and wound infection | Preparation of reports with presentations on the theme: electrocution, clinic, diagnostics, treatment. Conservative | Check essays, reports and presentations. |

| | | treatment of burn wounds. Necrolytic drugs in the treatment of burn wounds. Students have testing on the topic: "Thermal damage" in the SDL Moodle. | Hearing and group discussion. Checking the results of working with tests, questions for selfmonitoring in SDL Moodle. |
|---|---------------------|---|--|
| 6 | Orthopaedic disease | Preparation of abstracts and reports presentations on topics: frozen shoulder. Arthroscopic treatment of deforming arthrosis. Drug therapy of osteoarthritis. Koenig's disease, surgery. Conserving surgery for tumors of bone: indications, contraindications, technique. Surgical treatment of valgus deviation of the big toe. Orthopedic insoles: classification, structure, reading. Treatment of congenital clubfoot. Ponseti Method. Functional conservative treatment of congenital dislocation of the hip. Students have testing on the topics: "Deforming arthrosis", "Osteochondropathy (avascular bone necrosis). Bone tumors " in the SDL Moodle. | Check essays, reports and presentations. Hearing and group discussion. Checking the results of working with tests, questions for selfmonitoring in SDL Moodle. |

8. Forms of control

8.1. Forms of current control

- Oral: recitation on topic sesions, interview, assessment of the report, the protection of the medical history, clinical examination of the patient, analysis of multimedia presentations and slideshows, report on duty in the city emergency station;
- Written: test control on paper, essays, summaries, writing abstracts on the topics of missed practical lessons, solving clinical case studies, verification of educational histories.

A subject list of abstracts, reports, essays, tests, term papers, test collections and cases are shown at the section «Assessment tools».

8.2. Forms of interim attestation: the intermediate pass/fail test with the evaluation "passed" in the discipline, which goes to the next semester, at the end of the lecture and practical cycles of the semester. Upon completion of the educational process in the discipline - the exam.

- 1. Protection of educational history;
- 2. The test control;
- 3. Interview
- 4. Exam.

Stages of examination

- 1. Stage control of knowledge testing;
- 2. Stage demonstration of practical skills at the bedside (medical history, physical examination, diagnosis, differential diagnosis, a plan for the screening, treatment and follow-up);
 - 3. Stage interview on the ticket and the decision of situational tasks.

Questions for a pass/fail test and examination are listed at the section «Assessment tools».

9. Maintenance of the course

9.1. The basic literature.

- 1. Buckup K. Clinical Tests for the Musculoskeletal System:
 Examinations—Signs—Phenomena [Электронный ресурс]/ K. Buckup. 3rd ed.: Thieme, 2016 URL: https://medone-education.thieme.com/ebooks/1743958#/ebook_1743958_SL68979544.

 2. Matveev R. P. Clinical examination methods in traumatology and orthopedics [Электронный ресурс]: study guide/ R. P. Matveev, S. V. Bragina. -2-е изд., испр. и доп.. -Arkhangelsk: NSMU Publishing, 2020. 135 с.- URL: http://nb.nsmu.ru/cgi-
- bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN =ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CN R=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/M40-103592

9.2. Supplementary literature.

- 1. Gustowski S. Osteopathic Techniques. The Learner's Guide [Электронный ресурс]/ S. Gustowski, M. Budner-Gentry, R. Seals: Thieme, 2017 URL: https://medone-education.thieme.com/ebooks/2183288?fromSearch=true#/ebook_2183288_SL82661958.
- 2. Krischak G. Traumatology for the Physical Therapist [Электронный ресурс]/ G. Krischak: Thieme, 2013 URL: https://medone-education.thieme.com/ebooks/2140230?fromSearch=true#/ebook_2140230_SL81764939.
- 3. Reichert B. Palpation Techniques: Surface Anatomy for Physical Therapists [Электронный ресурс]/ B. Reichert: Thieme, 2015 URL: https://medone-

education.thieme.com/ebooks/2105006?fromSearch=true#/ebook_2105006_SL80735081.

4. Richter P. Trigger Points and Muscle Chains in Osteopathy [Электронный ресурс]/ P. Richter, E. Hebgen: Thieme, 2008 - URL: https://medone-

education.thieme.com/ebooks/2128797?fromSearch=true#/ebook_2128797_SL81432210.

5. Schomacher J. Orthopedic Manual Therapy: Assessment and Management [Электронный ресурс]/ J. Schomacher: Thieme, 2014 - URL: https://medone-

education.thieme.com/ebooks/2146146?fromSearch=true#/ebook_2146146_SL81904277.

9.3. List of Internet resources required for mastering of the discipline (module)

International databases

| 1 | Database «Scopus» | http://www.scopus.com/ |
|---|---|--|
| 2 | Electronic archive of magazines publishing SAGE PUBLICATIONS | www.sagepub.com |
| 3 | Electronic archive of magazines publishing IOP Publishing | http://iopscience.iop.org/jornals?ty pe=archive |
| 4 | Electronic archive of magazines publishing OXFORD UNIVERSITY PRESS | www.oxfordjournals.org/ |
| 5 | Electronic archive of magazine SCIENCE publishing AAAS | www.sciencemag.org. |
| 6 | Electronic archive of magazines publishing ROYAL SOCIETY OF CHEMISTRY | www.rsc.org/ |

University electronic library

| | • | | |
|---|--------------------|------|-------------------------|
| 1 | Electronic library | NSMU | http://lib.nsmu.ru/lib/ |

9.4 List of information technologies used in the educational process within the discipline (module), including software and referral systems

International databases

| 1 | Database «Scopus» | http://www.scopus.com/ |
|---|--|--------------------------------|
| 2 | Electronic archive publishing magazines SAGE | www.sagepub.com |
| | PUBLICATIONS | |
| 3 | Electronic archive publishing magazines IOP | http://iopscience.iop.org/jorn |
| | Publishing | als?type=archive |
| 4 | Electronic archive publishing magazines | www.oxfordjournals.org/ |
| | OXFORD UNIVERSITY PRESS | |

| 5 | Electronic archive of magazines SCIENCE | www.sciencemag.org. |
|---|---|------------------------|
| | publishing AAAS | |
| 6 | Electronic archive publishing magazines | www.rsc.org/ |
| | ROYAL SOCIETY OF CHEMISTRY | |
| 7 | Open University Archives in the international | http:/oa./lib.nsmu.ru/ |
| | directory | |

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом, в том числе помещения для самостоятельной работы, с указанием перечня основного оборудования, учебно-наглядных пособий и используемого программного обеспечения Учебная аудитория для проведения занятий лекционного типа № 2403 Морской медицины административный учебный корпус, 4 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 300 мест. б) наборы демонстрационного оборудования колонки, моноблок, проектор, экран в) перечень учебно-наглядных пособий: схемы,таблицы г) используемое программное обеспечение: Каѕрегѕку endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. МЅ Office 2007. МЅ Win Starter 7. МЅ Windows Prof 7 Upgr. МЅ Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 | Адрес (местоположение) помещений для проведения всех видов учебной деятельности, предусмотренной учебным планом (в случае реализации ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России программы в сетевой форме дополнительно указывается наименование организации, с которой заключен договор) 163000, г. Архангельск, просп. Троицкий, д. 51 |
|--|---|
| Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно | |
| Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 63, 2 этаж отделение ортопедии Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора — 5 лет. | 163045, Архангельская область, г. Архангельск, проезд Сибиряковцев, д. 15 |

Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп, скелет человека, транспортные шины г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163045, Архангельская область, г. Архангельск, типа, групповых и индивидуальных консультаций, проезд Сибиряковцев, д. 15 текущего контроля и промежуточной аттестации № 71, 2 этаж отделение ортопедии Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихсяна 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем дисциплины, негатоскоп, скелет человека, транспортные шины г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163001, Архангельская область, г. Архангельск, типа, групповых и индивидуальных консультаций, пр. Троицкий, д. 143 текущего контроля и промежуточной аттестации № 50, 4 этаж Договор № 710 от 26.09.2017 года об организации практической подготовки обучающихся, заключаемый между ФГБОУ ВО СГМУ (г.

Архангельск) Минздрава России и ГБУЗ Архангельской области «Первая городская клиническая больница им. Е.Е. Волосевич». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп, скелет человека

г) используемое программное обеспечение:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарного типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 213 учебный корпус, 2 этаж

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, схемы по темам занятий, скелет человека

г) используемое программное обеспечение:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

163001, г. Архангельск, просп. Троицкий, д. 180

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline Obstetrics and Gynecology

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) IV-VI/7-11

Form of the interim assessment **Examination**

Department of Obstetrics and Gynecology

Discipline workload 504 (academic hours) / 14 (credits)

Approved at the department meeting

Minutes No.

June 26th 2020

Head of the department

A.N. Baranov

Authors and compilers:

Istomina Natalya Georgievna, Associate Professor of the Department of Obstetrics and Gynecology, Candidate of Medical Sciences; Usynin Maxim Vadimovich, Associate Professor of the Department of Obstetrics and Gynecology, Candidate of Medical Sciences

Arkhangelsk, 2020

1. Goal and tasks of the mastering of the course

Goal of the discipline

The goal of the discipline is to get knowledge about the processes of physiological pregnancy and childbirth, possible complications of gestational process and labor, to learn how to put a preliminary diagnosis, to provide emergency care in obstetrics; to get basic knowledge of female reproductive health physiology in different age periods and main gynecological diseases in order to be able provide diagnosis and primary emergency care for gynecological patient.

Tasks of the discipline

- to learn the obstetric and gynecological care organization principles;
- to study general principles of obstetric and gynecological examination;
- to get and to analyze the data of patient medical history and specific functions of the female organism;
- to master clinical examination principles of pregnant women with physiological/pathological pregnancy, somatic co-morbidity;
- to train students in history composition, examination of pregnant and gynecological patients on the basis of ethics and deontology, depending on the diagnosed pathology and special features of patients;
- to study physiology and pathology of menstrual function;
- to study physiology of pregnancy and childbirth, to get knowledge of pregnancy symptoms, characteristics of the fetus as an object of labor;
- to get knowledge of the most dangerous pregnancy complications and childbirth, their risk factors, early symptoms, effects on the fetal condition, prevention methods; management, indications and methods of delivery;
- to master principles and methods of primary emergency care in severe obstetric and gynecological cases;
- to study methods of contraception and family planning;
- to master principles of treatment and rehabilitation of a gynecological patient;
- to train students in medical documentation filling-in (case history (stationary or outpatient), disability certificate, statistical chart, etc.);
- to provide regular medical check-up of children of different ages in order to prevent severe diseases and their complications.

2. Position of the course (module) within the structure of the educational program

The program is developed following the requirements of Federal State Education Standard (FSES) for higher education in the field of 31.05.01 «General medicine».

Courses for which mastering of the course is a necessary prerequisite are following: Academic discipline "Obstetrics and Gynecology" refers to the Block 1, basic part.

For the mastering of Obstetrics and Gynecology knowledge in the following disciplines is required:

- human, social and economic cycle (the Latin language, foreign language, pedagogy and psychology, public health, health-care organization, health economics);
- Mathematics and Natural sciences cycle (Biology, Anatomy, Biochemistry, Anatomy, Normal physiology, Microbiology, Immunology, Pathological physiology, Pathological anatomy, Hygiene and ecology, Introduction to the internal diseases, General surgery and Topographical Anatomy, Radiology, Medical rehabilitation, Infectious diseases, Perinatology and Neonatology, Genetics, Intensive care, Phthisiatry, Clinical pharmacology).

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

| Codes | * | | |
|-------------------------------------|--|--|---|
| of the formed compet ences | a student has knowledge of | a student is able to | a student masters |
| | Professi | onal competences | |
| PC-2 | - the main methods of prophylactic medical examinations, the essentials of the preventive medicine, aimed on improvement of health in population, the problems of medical-sanitary care in people involved in occupational hazards | -to maintain prophylactic medical examinations; - to interpret the results of investigations, making the most likely diagnosis to a patient, to plan a complex of the additional investigations to make a diagnosis more detailed; - to make a clinical diagnosis; - to make a plan of treatment, taking into consideration the characteristics of the disease, to prescribe a therapy, to use the methods of the non-pharmacologic treatment, to provide rehabilitation measures in different diseases; | - toprovide prophylactic medical examination, - to estimate the condition of health of in population of different age-gender groups |

| PC-5 | how to collect and analyze patient | analyze data | recognition the |
|-------|--------------------------------------|-------------------------------------|-------------------------------------|
| | complaints, data of its history, | J | condition or fact of |
| | examination results, laboratory, | | establishing the |
| | instrumental, and other studies in | | presence or absence |
| | order | | of disease |
| PC-12 | - thebasiclawsofRussia, | _ | - |
| | includingregulationsregardingmoth | toanalyzethequalityo | themethodsofproperke |
| | ers' and children health protection; | fthemedicalcare, the | epingthemedical |
| | - | condition of health of | records at the |
| | themethodologyofthemedicalstatisti | pregnant and | hospitals and out- |
| | csinestimationoftheactivity of the | gynecological | patient clinics of the |
| | medical organizations; | patients and the | maternal health care; |
| | - keepingreportrecordsatthe | impact of the | - themethods of |
| | medical organizations of the | environmental and | general (and special) |
| | women's and children health care; | production factors on | clinical investigation |
| | - the system of the women's health | it; | of pregnant women, |
| | care (principles of the prophylactic | - tocollecta | women in labor, |
| | medical examinations), pregnancy | medicalhistory, to | postpartum patients |
| | diagnostics, management of | interview a patient | and a fetus; |
| | pregnancy and labor; | (pregnant, in labor, | - |
| | - themodernmethodsofclinical, | in postpartum | interpretationoftheres |
| | laboratory and instrumental | period), to make a | ultsof the laboratory |
| | investigations in patients (pregnant | general investigation | and instrumental |
| | women, women in labor, | (visual estimation of | methods of |
| | postpartum patients); the general | a patient, palpation, | diagnostics in |
| | principles and features of | auscultation), to send | pregnant and |
| | diagnostics (prenatal and postnatal) | a patient for the | postpartum patients; |
| | of the inherent diseases and | laboratory and | - the algorithm of |
| | congenital malformations. | instrumental | making of the most |
| | | investigations, consultation of the | likely diagnosis with |
| | | | subsequent guiding a |
| | | specialists; | patient for additional diagnostics; |
| | | - to interpret the results of | - the algorithm of the |
| | | investigations, | detailed clinical |
| | | making the most | diagnosis. |
| | | likely diagnosis to a | diagnosis. |
| | | patient (pregnant, in | |
| | | labor, in postpartum | |
| | | period), to plan a | |
| | | complex of the | |
| | | additional | |
| | | investigations to | |
| | | make a diagnosis | |
| | | more detailed; | |
| | | - to make a clinical | |
| | | diagnosis; | |
| | | - to provide maternal | |
| | | health care; | |
| | | - to keep medical | |
| | | records, to fill a | |
| | | prescription. | |

4. Volume of the course (module) and types of the academic work:

Total workload of the course is ___14__ credits.

| | Type of academic work | Total | Term |
|--------------|--------------------------------------|-------|------|
| Discipline | | hours | |
| workload | Lectures (L) | 78 | 7-11 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 160 | 7-11 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination (PE) | 33,7 | 11 |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 11 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 230 | 7-11 |
| | Examination control (EC) | 0,3 | 11 |
| | Total course workload | 504 | 7-11 |
| | | | |

5. Contents of the course:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|--------------------|--|---|
| 1 | 2 | 3 |
| Obstetr Section | ics 1. Physiological Obstetrics (term 7) | |
| 1 | The structure and organization of the maternity hospital. The structure and organization of outpatient obstetric care setting. Sanitary-epidemiological system in Maternity Hospital | The structure and organization of the maternity hospital. The structure and organization of the welfare clinic. Sanitary-Epidemiological system in Maternity Hospital. The structure of the maternity hospital. The organization of in-patient transfer. The structure of the welfare clinic, antenatal screening aim, prophylactic measures, family planning, social assistance for pregnant women, Obstetric care indices |
| 2 | Female reproductive system.Development stages and physiology. Fertilization and pregnancy development. Fetal physiology. Placental functions. Physiologic alterations during pregnancy | Stages of the female reproductive system development, malformations of the external and internal genitalia, regulation in the reproductive system. Histology of the ovum and sperm. Fertilization. Implantation. Placentation. Embryonic and fetal development periods. Physiological alterations during pregnancy. |
| 3 | Methods of obstetric examination. Diagnosis of early pregnancy. | Specific features of history-taking in obstetrics. Obstetric examination. Pelvimetry. |

| | Methods to evaluate fetal well-being | Soloviev's Index. Leopold manoeuvres. Auscultation of fetal heartbeats. Vaginal examination of pregnant patient. Diagnosis of pregnancy (presumably, probable and valid symptoms, laboratory tests). Determination of gestational age and expected date of delivery. The concept of obstetric and perinatal risk groups. The concept of obstetric screening. Booking visit in antenatal screening programm. Obstetric records. Methods to evaluate fetal well-being. Biochemical screening, ultrasound obstetric examination, CTG, Doppler. Additional methods - amnioscopy, amniocentesis, chorionic villus sampling, cordocentesis, biopsy of the fetal tissues. |
|---------|---|--|
| 4 | Fetus as the object of delivery. Female pelvis from obstetric point of view. Labor mechanism in occipital presentation. | Fetal head anatomy and sizes. Female pelvis anatomy, pelvic planes, sizes, axis. Pelvic floor muscles, blood supply and innervation of the pelvic muscles. Definition of labor mechanism. Labor mechanism moments in occiput presentation |
| 5 | Preparatory phase of the labor onset. Physiology and management of labor | The reasons for the labor onset. Clinical features of the preliminary phase. Bishop's score. Labor stages (dilatation, the expulsion of the fetus, placental). Labor management specificity in I, II and III stage of labor. The position of the fetal head with respect to the pelvic planes. Coping with pain during labor. Perineum safeguard technique. Primary care for the newborn. Apgar score. Signs of placental separation. Methods to remove the placenta. Examination of the placenta. |
| 6. | Puerperium. | The early puerperium management. Physiology of the puerperium. Mammary glands changes in puerperium. Lactation. Late puerperiu management. Postpartum Contraception |
| Section | on 2: Pathology of pregnancy, childbi | rth and the puerperium (term 8) |
| 7. | Pregnancy complications at early stages. Preeclampsia. Eclampsia. | Nausea and vomiting in pregnancy. Salivation. Rare forms - dermatosis, tetany, osteomlyatsiya, acute yellow atrophy of the liver, asthma of pregnant. |
| | | Hypertension during pregnancy - classification, etiology and pathogenesis, Preeclampsia. Eclampsia. Indication for pregnancy termination. Management of labor and the postpartum period. Postpartum therapy of severe preeclampsia. |
| 8. | Pregnancy with somatic comorbidity | Antenatal management of pregnant women with cardiovascular diseases (heart disease, hypertension, rheumatism), kidney disease (pyelonephritis, glomerulonephritis, kidney insufficiency), chronic anemia, diabetes mellitus, |

| | | liver disease. Medical complications of pregnancy. |
|-----|---|---|
| 9 | Miscarriage. Preterm delivery. Post-term delivery. | Spontaneous abortion - definition, causes, clinical features, differential diagnosis, therapy. |
| | | Preterm birth (definition, obstetric care, prevention). Primary care and resuscitation of a premature baby. |
| | | Post term delivery - definition, causes. Signs of postterm child. Labor induction indications, management specificity. |
| 10. | Abnormal labor contractions. Placental insufficiency. | Placental function. Etiology and pathogenesis of the placental insufficiency; diagnosis, principles of therapy. Primary and secondary uterine hypotonic contractions. Precipitate delivery. Uterine dystocia. Main principles of management. |
| 11. | Contracted pelvis. Multiple pregnancy. Fetal macrosomia | Contracted pelvis-definition, classification. Labor mechanism specificity in various forms of pelvic contraction. Clinical features of labor in case of contracted pelvis. Feto-pelvic disproportion. Fetal macrosomia. Delivery planning. |
| | | Etiology of multiple pregnancy. Diagnosis, possible complications, management of multiple pregnancy. |
| 12. | Fetal malpositions. Breech presentation. Fetal cephalic malpresentation | Classification, risk factors and diagnosis of fetal malposition. Breech presentation - definition, classification. Labor mechanism in breech presentation. Management of pregnancy and childbirth. Manoeuvres by Tsovyanov, Mauriceau—Smellie—Veit to assist natural birth. Oblique and transverse position of the fetus. Management of pregnancy and delivery. Fetal cephalic malpresentations, diagnosis, risk factors, management. |
| 13. | Placenta previa. Placental abruption. Placental anomalies. Atonic uterine bleeding in the early and late postpartum period. | The classification of placenta previa. The etiology and pathogenesis, pregnancy and delivery management. Placental abruption etiology and pathogenesis, clinical features, diagnosis, management of pregnancy and childbirth. Placenta accreta - classification, diagnosis, obstetrical tactic. |
| | | The concept of the uterine atony. Risk factors, symptoms and management. Late postpartum hemorrhage. Emergency care. Prevention of postpartum hemorrhage |
| 14. | Puerperium infections. | Puerperium infections classification, etiology, pathogenesis. Puerperium wound infection, endometritis, thrombophlebitis. Obstetric |

| | | peritonitis. Sepsis. Postpartum lactation mastitis. |
|---------|---|---|
| Section | on 3: Obstetric surgery (term 8) | . 1 |
| 15. | Obstetric trauma. Operative vaginal delivery techniques. Caesarean section. | Birth canal lacerations. Perineal tears. Vaginal and cervical ruptures. Uterine rupture. Classification, etiology, pathogenesis, treatment measures. Threatening, the beginning and the accomplished uterine rupture. |
| | | Obstetric forceps, vacuum extraction of the fetus. |
| | | Cesarean section indications and technique. Management of the postoperative period. Complications and long-term consequences. Prevention of postpartum infections. |
| Gyne | cology. | |
| Section | on 1: General gynecology (term 9) | |
| 16 | Diagnostics in Gynecology | Features of the gynecological examination: general, pelvic examination, hormonal, instrumental, x-ray, ultrasound, immunological, etc. Case history of gynecologic patient. |
| 17. | Abnormal Uterine Bleeding. Dysfunctional Uterine Bleeding. Dysmenorrhea. | Etiology, pathogenesis, classification, symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function |
| 18. | UterineFibroid. Endometriosis. Adenomyosis. | Etiology, pathogenesis, classification. Symptoms Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function |
| 19. | Vaginal Infections. Pelvic Inflammatory Disease (PID). | Etiology, pathogenesis, classification. Symptoms Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function |
| 20. | Hormonal Contraception | History. Classifications. Principles of contraceptive action. Pearl index. Investigations. Contraindications. Non-contraceptive benefits. |
| Section | on 2: General gynecology (term 10) | |
| 21. | Ovarian Cysts and Tumors. Ovarian Cancer. | Etiology, pathogenesis, classification. Symptoms Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function |
| 22. | Amenorrhea. | The concept of family planning. Methods of contraception. Contraindications. Therapeutic effects of hormonal contraceptives. Features of contraception in different age-groups. |

| 23. | Menopausal and Senile Period in Women. | |
|---------|--|---|
| Section | 3: Emergency gynecology (term 10) | |
| 24. | Acute abdomen in gynecology (apoplexy of the ovary, ovarian cyst rupture, uterine fibroid's necrosis). | Etiology, pathogenesis, classification. Symptoms Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function |
| Section | 4: Operative gynecology (term 10) | |
| 25. | Artificial abortion. | Safe artificial abortion - indications, techniques, possible complications. Rehabilitation of the reproductive system. |
| 25 | Operative gynecology. | Gynecological surgery. Possible access, volume of transaction, technique. Postoperative management. |

5.2. Course sections and types of studies

| No | Name of the course section | L | P | S | LB P | CP | Self- studies | Total hours |
|-----|---|--------|------|---|---------|----|------------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Obsteti | rics M | odul | e | | | | |
| 1. | The subject of an obstetrics. Obstetric care organisation. Main indices | 2 | | | | | | 2 |
| 2. | The structure and organization of the maternity hospital. Prophylaxy of nosocomial infections | | | | | 5 | 2 | 7 |
| 3 | Physiology of a menstrual function | 2 | | | | | 2 | 2 |
| 4 | Fertilisation. Early stages of embryo development | 2 | | | | | 2 | 2 |
| 5 | Placental physiology | 2 | | | | | 2 | 2 |
| 6 | Physiology alterations during pregnancy | 2 | | | | | 2 | 2 |
| 7. | Fetus as the object of delivery. Female pelvis from an obstetric point of view. | | | | | 5 | 4 | 9 |
| 8. | Pregnancy diagnosis. Obstetric examination. Additional methods of obstetrical examination. | | | | | 5 | 2 | 7 |
| 9. | Outpatient obstetric setting. Antenatal screening. | | | | | 5 | 4 | 9 |
| 10. | Labor mechanism in occipital presentation. | | | | | 5 | 4 | 9 |
| 11 | Labor physiology | 2 | | | | | 2 | 2 |

| 12 | Labor pain relief | 2 | | 2 | 2 |
|----|---|---|---|---|----|
| 13 | Labor management in 1st and 2nd stages. | | 5 | 2 | 7 |
| 14 | Labor management specificity in 3rd stage of labor. Early postpartum period. | | 5 | 2 | 7 |
| 15 | Puerperium. Anatomy and physiology of the newborn. Primary care for the newborn, principles of resuscitation. Breastfeeding | 2 | 5 | 2 | 9 |
| 16 | Antenatal screening. Methods to evaluate fetal well-being. | 2 | 5 | 2 | 7 |
| 17 | Abnormal uterine contractions | 2 | 5 | 2 | 9 |
| 18 | Contracted pelvis. Feto-pelvic disproportion. | 2 | 5 | 2 | 9 |
| 20 | Abnormal cephalic presentation. Fetal malposition. | | 5 | 2 | 7 |
| 21 | Pregnancy and delivery in breech presentation. Fetal small parts presentation and prolaps. | | 5 | 2 | 7 |
| 22 | Miscarriage. | 2 | 5 | 2 | 9 |
| 23 | Preterm birth. Prematurity. Post-term delivery. | 2 | 5 | 2 | 9 |
| 24 | Multiple pregnancy. | 2 | 5 | 2 | 9 |
| 25 | Maternal labor trauma. Delivery techniques. | 4 | 5 | 4 | 13 |
| 26 | Antenatal bleeding: placenta praevia, placenta accreta. Haemorrhagic shock | 2 | 5 | 2 | 9 |
| 27 | Postpartum bleeding. DIC-syndrome. | 2 | 5 | 2 | 9 |
| 28 | Puerperium infections. | 2 | 5 | 2 | 9 |
| 29 | Complications of early pregnancy. Hypertension during pregnancy Diagnosis. Management. | 4 | 5 | 2 | 11 |
| 30 | Isosensibilisation during pregnancy | 2 | | 2 | 2 |
| 31 | Cardiac pathology in pregnancy (heart disease, arrhythmia, anemia and kidney pathology) | 6 | 5 | 2 | 9 |
| 32 | Endocrine pathology Gastro- intestinal pathology during pregnancy. Acute surgical diseases in pregnant women. | 6 | 5 | 2 | 9 |

| 33 | Fetal pathology (malformations, IUGR, fetal hypoxia, neonatal asphyxia). | 4 | | 5 | 4 | 9 |
|----|--|---|--|---|---|---|
| 34 | Placental insufficiency. | 2 | | | 2 | 2 |
| 35 | Perinatal infections | 2 | | | 2 | 2 |
| 36 | Case history record | | | | 8 | 8 |

Gynecology Module

| | Semiotics and methods of | | | | | |
|-----|--|---|--|---|---|----|
| 1. | gynecological examination | | | 5 | 2 | 7 |
| 2. | Abnormal uterine bleeding | 2 | | 5 | 6 | 11 |
| 3. | Pelvic inflammatory disease. | 2 | | 5 | 6 | 11 |
| 4. | Menstrual function disorders. | 2 | | 5 | 6 | 11 |
| 5. | Ovarian cysts. Ovarian pathology | 2 | | 5 | 6 | 11 |
| 6. | Leiomyomata. Endometriosis. | 2 | | 5 | 4 | 11 |
| 7. | Gynecologycal cancer | | | 5 | 6 | 9 |
| 8. | Cervical pathology. Pathology of endometrium | 2 | | 5 | 6 | 11 |
| 9. | Differential diagnosis with surgical pathology. | 2 | | 5 | 6 | 9 |
| 10. | Family planing. Methods of contraception. | 2 | | 5 | 4 | 11 |
| | Artificial abortion. Indications for pregnancy termination, methods in 1 and 2 trimester. Possible | | | | | |
| 11. | complications. | 2 | | 5 | 4 | 11 |
| 12. | Gynecological surgery. Preparation. postoperative care | | | 5 | 4 | 9 |
| 13. | Genital system development. Genital malformations. | 2 | | 5 | 6 | 11 |
| 14. | Endocrinal syndromes in gynecology.Menopausal physiology and pathology. | 4 | | 5 | 8 | 13 |

| 15. | Genital prolaps. Urination disturbances | 2 | | 5 | 4 | 11 |
|-----|--|----|--|-----|-----|-----|
| 16. | Sexually transmitted infections. Genital tuberculosis. | 2 | | 5 | 4 | 11 |
| 17. | Viral infections in gynecology. Herpes simplex. Papilloma-virus infection. | 2 | | 5 | 2 | 11 |
| 18. | Endometrial hyperplasia and endometrial cancer. | 2 | | | 4 | 6 |
| 19. | Endocrinal syndromes in gynecology | 2 | | | 4 | 6 |
| 20. | Infertility. Assisted reproductive techniques. | 2 | | 5 | 4 | 11 |
| | Organisation of gynecologycal care for children and adolescents. | | | | 4 | |
| 21. | Gynecologycal pathology in these age groups. | 2 | | | | 6 |
| 22. | Case-history record. | | | | 6 | 6 |
| | Total: | 78 | | 160 | 230 | 504 |

6. Interactive forms of studies

| No | Name of the course section | Interactive forms of studies | Duration (hours) | | |
|-----|---|---|------------------|--|--|
| 1. | Obstetric examination. Early pregnancy diagnosis. | Working off on models and phantoms. | 2 | | |
| 2. | Female pelvis from an obstetric point of view. Fetus as an object of a delivery | Working off on models and phantoms. Video support. | 2 | | |
| 3. | Labor physiology and management | Working off on models and phantoms. Discussion of clinical cases Video support. | 2 | | |
| 4. | Puerperium physiology and management | Working off on models and phantoms. Analysis of clinical situations. | 2 | | |
| 5. | Preeclampsia and eclampsia | Discussion of clinical cases (in Moodle) | 2 | | |
| 6. | Pregnancy and somatic comorbidity | Discussion of clinical cases (in Moodle) | 2 | | |
| 7. | Miscarriage and preterm delivery | Discussion of clinical cases (in Moodle) | 2 | | |
| 8. | Postterm pregnancy | Discussion of clinical cases (in Moodle) | 2 | | |
| 9. | Labor contractions abnormality | Discussion of clinical cases (in Moodle) | 2 | | |
| 10. | Vaginal birth in breech presentation | Working off on models and phantoms. Discussion of clinical cases | 2 | | |
| 11. | Antenatal bleeding | Discussion of clinical cases (in Moodle) | 2 | | |
| 12. | Postpartum haemorrhage | Discussion of clinical cases (in Moodle) | 2 | | |

| | Delivery techniques | Working off on models and phantoms. | | |
|-----|---------------------------|-------------------------------------|----------|--|
| 13. | | Discussion of clinical cases. Video | 2 | |
| | | support. | | |
| 14. | Gynecologycal examination | Working off on models and phantoms. | 2 | |
| 14. | | Video support. | <u> </u> | |
| 15. | Main gynecological | Working off on models and phantoms. | 2 | |
| 13. | investigations | Video support. | ۷. | |
| 16. | Differential diagnosis in | Working off on models and phantoms | 2 | |
| 10. | pevic tumors | Video support. | 2 | |
| | | Total (% of in-class learning) | 32 (16%) | |

${\bf 7.} \ Extracurricular \ self-studies \ of \ students$

| No | Name of the course section | Types of self-studies | Forms of control |
|----|---|--|---|
| 1 | Maternity department organisation. | Self-work with manual. | 1.MCQ 2.Oral survey |
| 2 | Female pelvis from an obstetric point of view. Fetus as an object of a delivery | Self-work with manual. | 1.MCQ 2.Oral survey |
| 3 | Additional methods of obstetric examination | Working off on models and phantoms. Viewing educational videos. | 1.MCQ 2.Oral survey |
| 4 | Management of normal labor | Working off on models and phantoms. Viewing educational videos. | 1.MCQ 2.Oral survey |
| 5 | Vaginal birth in breech presentation. Fetal small part prolapse. | Working off on models and phantoms Viewing educational videos. | 1.MCQ 2.Oral survey |
| 6 | Preeclampsia | Preparation of a report and presentation | 1.Case study |
| 7 | Medical complications in pregnancy | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 8 | Emergency care in postpartum bleeding | Viewing educational videos. | 1.MCQ 2.Oral survey |
| 9 | Preterm delivery. Possterm delivery | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1 Case study |
| 10 | Main gynecological diagnostic manipulations | Working off on models and phantoms Viewing educational videos. | 1.MCQ 2.Oral survey |
| 11 | Pelvic inflamatory disease | Preparation of a report and presentation, an independent development of control questions for | 1.MCQ 2.Oral survey 3. Case study |

| | | discussion in the group. | |
|----|--|--|---|
| 12 | Menstrual function disorders | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 13 | Genital tumors | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3.Case study |
| 14 | Differential diagnosis of gynecological and surgical pathology | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 15 | Family planing. Methods of contraception | Self-work with manual. | 1.MCQ 2.Oral survey |
| 16 | Abortion | Self-work with manual. Viewing educational videos. | 1.MCQ 2.Oral survey 3.Case study |

8. Forms of control

8.1. Current forms of control

- oral (an interview, a credit)
- technical means (training tests, certification tests)
- written (tests, essays, abstracts, practice report).

A subject list of abstracts, reports, essays, tests, term papers, test collections and cases are shown at the section «Assessment tools».

8.2. Forms of interim attestation

Intermediate control - credit Final control - examination

9. Library and information materials of the course

9.1. Compulsory course literature

(available in/via the library of NSMU)

- 1. D.C. Dutta Text Book of Obstetrics: including Perinatology and Contraception/ Dutta D. C. . 6th. ed.: New Central Book Agency LTD, 2009. 685p.
- 2. CDC Dutta's textbook of Obstetrics including Perinatology and Contraception/ Dutta D.C. 7th ed. 2013. 692 p.
- 3. Obstetrics by Ten Teachers/ ed. Philip N. Baker. -18 th.ed.. -London: Edward Arnold (Publishers) Ltd, 2006. -340 p.

- 4. Gynaecology by Ten Teachers/ ed. Ash Monga. -18 th.ed.. -London: Edward Arnold (Publishers) Ltd, 2006. -245 p.
- 5. Акушерство [Электронный ресурс] : учебник/ Г. М. Савельева [и др.]. -Москва: ГЭОТАР-Медиа, 2010. -651,[1] с: ил., цв.ил. Режим доступа: http://www.studmedlib.ru/
- 6. Гинекология [Электронный ресурс] : учебник [для студентов медицинских вузов, ординаторов, аспирантов]/ Б. И. Баисова ; ред.: Г. М. Савельева, В. Г. Бреусенко. 4-е изд., перераб. и доп.. -Москва: ГЭОТАР-Медиа, 2012. -432 с.: ил. Режим доступа: http://www.studmedlib.ru/.
- 7. Gynecology [Электронный ресурс]: textbook/ ed.: V. E. Radzinskiy, A. M. Fuks. Москва: ГЭОТАР-Медиа, 2020. -896 с.- URL: https://www.studentlibrary.ru/ru/book/ISBN9785970457993.html
- 8. Акушерство [Электронный ресурс] : учебник/ Г. М. Савельева [и др.]. -Москва: ГЭОТАР-Медиа, 2015. -656,[1] с: ил., цв.ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970432952.html
- 9. Гинекология [Электронный ресурс] : учебник [для студентов медицинских вузов, ординаторов, аспирантов]/ Б. И. Баисова ; ред.: Г. М. Савельева, В. Г. Бреусенко. 4-е изд., перераб. и доп.. -Москва: ГЭОТАР-Медиа, 2018. -432 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970422540.html

9.2. Supplementary course literature

(available in/via the library of NSMU)

- 1. Nikolaeva O. A. Maternity department: Handbook for students/ O. A. Nikolaeva, T. S. Kachalina, G. O. Grechkanev. -N.Novgorod: Publishing House of Nizhny Novgorod State Medical Academy, 2007. -68 p
- 2. Nikolaeva O. A. Pathological gestation: Handbook for students/ O. A. Nikolaeva, T. S. Kachalina, G. O. Grechkanev; Ministry of public health, Nizhny Novgorod Medical Academy, Department of obstetrics and gynecology. -N.Novgorod: Publishing House of Nizhny Novgorod State Medical Academy, 2007. -67 p.
- 3. Трещева, Наталья Дмитриевна. Ситуационные задачи по гинекологии [Текст]: учеб. пособие для вузов по специальностям: лечеб. дело, педиатрия / Н. Д. Трещева; М-во здравоохранения Рос. Федерации, Сев. гос. мед. ун-т. Каф. акушерства и гинекологии. Архангельск: Изд-во СГМУ, 2014. 373, [1] с.
- 4. Трещева, Наталья Дмитриевна. Тесты по основным разделам патологического акушерства [Текст] : учеб.-метод. пособие: в 2- х ч. / Н. Д. Трещева ; М-во здравоохранения Рос. Федерации, Сев. гос. мед. ун-т. Каф. акушерства и гинекологии. Архангельск : Изд-во СГМУ, 2013.
- 5. Obstetrics [Электронный ресурс] : учебное пособие/ ред.: В. Е. Радзинский, А. М. Фукс, Ч. Г. Гагаев. -Москва: ГЭОТАР-Медиа, 2019- URL:

9.3. List of Internet resources required for mastering of the discipline (module)

1. WHO official site for maternal and perinatal health:

http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/en/

- 2. Cochrane Summaries: http://www.cochrane.org/evidence
- 3. The Royal College of Obstetricians and Gynaecologists (RCOG) official site: https://www.rcog.org.uk/guidelines
- 4. Society of Obstetricians and Gynaecologists of Canada (SOGC) official site: http://sogc.org/clinical-practice-guidelines/
- 5. American Congress of Obstetricians and Gynecologists (ACOG) official site: http://www.acog.org/
- 6. The International Federation of Gynecology and Obstetrics (FIGO) official site: http://www.figo.org/publications-resources
- 7. Centers for disease control and prevention (CDC): http://www.cdc.gov/

9.4 List of information technologies used in the educational process within the discipline (module), including software and referral systems

Software:

Каspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения всех | Адрес (местоположение) помещений для |
|--|---|
| видов учебной деятельности, предусмотренной | проведения всех видов учебной |
| учебным планом, в том числе помещения для | деятельности, предусмотренной учебным |
| самостоятельной работы, с указанием перечня | планом (в случае реализации ФГБОУ ВО |
| основного оборудования, учебно-наглядных | СГМУ (г. Архангельск) Минздрава России |
| пособий и используемого программного | программы в сетевой форме дополнительно |
| обеспечения | указывается наименование организации, с |
| | которой заключен договор) |
| Учебная аудитория для проведения занятий | 163000, г. Архангельск, просп. Троицкий, д. |
| лекционного типа №2403 Морской медицины, | 51 |
| административный учебный корпус, 4 этаж | |
| а) перечень основного оборудования: | |
| Комплект учебной мебели (столы, стулья, | |
| экран,доска) рабочее место преподавателя, | |
| рабочие места для обучающихся на 300 мест. | |
| б) наборы демонстрационного оборудования | |
| колонки, моноблок, проектор, экран | |
| в) перечень учебно-наглядных пособий: | |
| схемы, таблицы | |
| г) используемое программное обеспечение: | |
| Kapersky endpoint Security. Номер лицензии 26FE- | |
| 191125-134819-1-8403. Срок действия до | |
| 05.12.2021 г. | |
| MS Office 2007. MS Win Starter 7. MS Windows | |
| Prof 7 Upgr. MS Windows Server CAL 2008 Device | |
| САL. Номер лицензии 46850049, бессрочно | |
| • | |

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163045, Архангельская область, г. типа, групповых и индивидуальных Архангельск, пр. Ломоносова, д. 292 консультаций, текущего контроля и промежуточной аттестации № 20, 1 этаж акушерско-гинекологический корпус Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, муляжи, табличные и справочные материалы, тонометр Gamma G7, стетоскоп, фонендоскоп, термометры, весы электронные, ростомер, муляж гинекологический, банк кейсов различных неонатальных заболеваний, систематизированные по нозологическим г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163045, Архангельская область, г. типа, групповых и индивидуальных Архангельск, пр. Ломоносова, д. 292 консультаций, текущего контроля и промежуточной аттестации № 26, 1 этаж акушерско-гинекологический корпус Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования:

ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, муляжи, табличные и справочные материалы, тонометр Gamma G7, стетоскоп, фонендоскоп, термометры, весы электронные, ростомер, муляж гинекологический г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163045, Архангельская область, г. типа, групповых и индивидуальных Архангельск, пр. Ломоносова, д. 292 консультаций, текущего контроля и промежуточной аттестации № 27, 1 этаж акушерско-гинекологический Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся, заключаемый между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихсяна 14 мест, основное оборудование, б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, муляжи, табличные и справочные материалы, тонометр Gamma G7, стетоскоп, фонендоскоп, термометры, весы электронные, ростомер, муляж гинекологический г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Симуляционный класс № 426, учебный корпус, 4 163001, г. Архангельск, просп. Троицкий, д. этаж: родильный зал для отработки навыков. 180 перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины.

Столик манипуляционный МСК-549-02-МСК, кровать для родовспоможения с матрацом, ширма, шкаф, система реанимационная открытая для ухода за новорожденными Ampla 2085, модель таза женщины для демонстрации движения плода на подставке, расширенная версия гинекологического фантома родов, роботсимулятор для отработки навыков родовспоможения женщине "Люсина", монитор фетальный Овертон 6900, система "ВиртуЭЛЬ" для отработки навыков родовспоможения и оказания приемов неотложной помощи в акушерской практике, модель демонстрации родового канала женщины на подставке, симулятор гибридный для обучения бимануальному гинекологическому исследованию, фантом гинекологический, манекен "ВиртуБОРН" новорожденного для отработки расширенных лечебнореанимационных действий в неонатологии,полная комплектация с ЭКГ

163001, г. Архангельск, просп. Троицкий, д. 180

Учебная аудитория для занятий семинарского типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 425, учебный корпус, 4 этаж (кабинет для дебрифинга) а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 12 мест. б) наборы демонстрационного оборудования ноутбук, проектор, телевизор, маркерная доска в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номер документа 11001793
Traffic inspector. Лицензионное соглашение

г) используемое программное обеспечение:

№1051-08 от 10.04.2008, бессрочно

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUS OF THE DISCIPLINE

Discipline **Pediatrics**

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) IV-V/8-10

Form of the interim assessment **Examination**

Department of Neonatology and Perinatology

Discipline workload 360 (academic hours) / 10 (credits)

Approved at the department meeting

Minutes No.

June 20th 2020

Head of the department

G.N. Chumakova

Author and compiler:

Usynina Anna Alexandrovna, Associate Professor of the Department of Neonatology and Perinatology, Candidate of Medical Sciences

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to give knowledge of children normal growth and development as well as main kinds of children pathology. The course also gives knowledge of main syndromes of the most frequent diseases among children and teenagers as well as the principles of a healthy lifestyle and nutrition in healthy and unhealthy children. The course of pediatrics introduces diagnostic algorithms, treatment and prevention of the most frequent diseases in childhood. It also gives the description of the system of pediatric service in Russian Federation. |
|-------------------------|---|
| Tasks of the discipline | - to provide communication skills in the students; to teach them to communicate with healthy and sick child, with children' parents; to follow the principles of ethics and deontology; |
| | - to get and to analyze the data of patient medical history and development of the child; |
| | - to provide a physical examination of the child (palpation, percussion, auscultation) and to interpret the obtained data, taking into account anatomical and physiological features; |
| | - to analyze the causes, diagnosis, and interpretation of the most frequent diseases; |
| | - to organize therapeutic and preventive activity for the main groups of diseases, to provide emergency care for life threatening conditions in children; |
| | - to provide regular medical check-up of children of different ages in order to prevent severe diseases and their complications; |
| | - to support healthy lifestyle in the family; |
| | - to organize and to promote proper healthy nutrition of children by different ages; |
| | - to organize proper epidemiological environment; |
| | - to assess the efficiency of medical service. |

2. Position of the course (module) within the structure of the educational programThe program is drawn up following the requirements of the Federal State Education Standard (FSES) in the training field 31.05.01 «General medicine». Block 1. Basic part.

Courses for which mastering of the course is a necessary prerequisite are following: Biology, Anatomy, Normal physiology, Microbiology, Immunology, Pathological physiology, Pathological anatomy, Hygiene and ecology, Introduction to the internal diseases, General surgery, Radiology, Medical rehabilitation, Infectious diseases, Obstetrics and gynecology, Neurology, Genetics, Intensive care, Phthisiatry, Clinical pharmacology.

3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed | C | ompetences | | | |
|---------------------|---|---|--|--|--|
| competences | a student has knowledge of | a student has a student is knowledge of able to | | | |
| | | fessional compete | masters metences | | |
| GPC-6 | conducting medical documents. | find an information in medical documents | the use medical documents in solving professional problems | | |
| | Professi | ional competences | | | |
| PC-5 | how to collect and analyze patient complaints, data of its history, examination results, laboratory, instrumental, and other studies in order basic pathological conditions, symptoms, syndromes, nosological forms | to determine the patients basic pathological conditions, symptoms, syndromes, diseases, nosological | recognition the condition or fact of establishing the presence or absence of disease to categorize the disease in accordance with the International Classification of Diseases | | |
| PC-9 | the treatment of patients with a variety of diseases in in-patient and out-patient departments | forms to determine the management of patients with studied diseases in in-patient and out-patient departments | to define the basic treatment algorithm in in-patient and out-patient departments | | |
| PC-10 | the provision of medical care in emergency situations, | provide medical care in emergency | to define the basic treatment algorithm in | | |

| including those | situations, | emergency |
|---------------------|-----------------|-----------------|
| involved in medical | including those | situations, |
| evacuation | involved in | including those |
| | medical | involved in |
| | evacuation | medical |
| | | evacuation |

4. Volume of the course (module) and types of the academic classes: Total workload of the course is 10 credits.

| | Type of the academic work | Total hours | Term |
|--------------------------|-----------------------------------|-------------|------|
| Discipline | | | |
| workload | Lectures (L) | 52 | 8-10 |
| (in academic | Seminars (Sem.) | | |
| hours) | Practical classes (PC) | | |
| | Clinical practicals (CP) | 110 | 8-10 |
| | Laboratory-based practicals (LBP) | | |
| | Simulation-based practicals (SBP) | | |
| | Preparation for the examination | 33,7 | 10 |
| (PE) | | | |
| | Preparation for the credit (PC) | | |
| | Exam consultations (EC) | 2 | 10 |
| | Coursework (CW) | | |
| | Unsupervised work (UW) (total) | 162 | 8-10 |
| Examination control (EC) | | 0,3 | 10 |
| | Total course workload | 360 | 8-10 |

5. Contents of the course:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|----|---------------------------------|---|
| 1 | 2 | 3 |
| 1 | General questions of Pediatrics | |
| | | Periods of childhood. Studying of periods of childhood. Anamnesis. Methods of examination of the child at different ages. |
| | | Physical and neuropsychological development. Regularities of physical and neuropsychological development of the child. Methodology and evaluation criteria. |
| | | Dietetics of healthy child. Basic principles of rational nutrition for infants and young children. Methods of calculation of nutrition. |
| | | Anatomical and physiological features of organs and systems. APF (anatomical and physiological features) of nervous system |

| | | and sensory organs in children, skin and subcutaneous fat, lymphatic system in children, bone and muscle systems in children, respiratory system, circulatory system in children, urinary tract in children, the endocrine system. |
|---|---------------------------------|---|
| 2 | The pathology of infancy | |
| | | Chronic digestion disorders. Etiology and pathogenesis of chronic digestion disorders. Hypotrophy, paratrophy, gipostatura. Diagnosis, principles of treatment and observation. Pilorospasm and pilorostenosis. Anomalies of the constitution. Types of |
| | | anomalies in the constitution. Diagnosis, clinical manifestations, treatment and supervision of children. |
| | | Rickets. The etiology and pathogenesis. Diagnosis, principles of prevention and treatment of rickets, regular madical check-up. Differential diagnosis of rickets with similar to rickets diseases. Hypervitaminosis D. Spasmophilia, emergency care for convulsive syndrome. |
| | | Anemia. Anemia in children. Deficiency anemia - iron, protein deficiency, B12 and folic acid-deficiency anemia. Causes, clinical features, diagnosis, principles of treatment and prevention. |
| | | Diseases of the respiratory system. Bronchitis and pneumonia in children. |
| | | Diseases of the cardiovascular system. Congenital heart disease. Classification. Algorithm of the diagnosis congenital heart disease. |
| | | Healthy newborn. Breastfeeding. Physiological adaptation. TORCH infections. SGA babies. Prematurity, preterm newborns. Rh incompatibility. Acute asphyxia. Resuscitation in delivery unit. Birth trauma. |
| 3 | The pathology of older children | |

| | | Diseases of the respiratory system. Chronic respiratory disease. Bronchial asthma. Diseases of the cardiovascular system and rheumatic diseases. Inflammatory diseases. Rheumatism. Diffuse connective tissue diseases. Heart failure Diseases of urinary System. Pyelonephritis, cystitis. Enuresis. Nephritis and nephropathy. Tubulointerstitial nephritis. Acute and chronic renal failure. Arthritis. Classifications. Types of disorders. Diseases of gastrointestinal tract. Chronic esophagitis, chronic gastritis, gastroduodenitis, peptic ulcer of the stomach and duodenal ulcer. Pathology of the pancreas, gallbladder and bile ducts. Diagnostics, principles of treatment, rehabilitation and observation. Diseases of the blood system. The etiology, pathogenesis and clinical manifestations of certain forms of hemorrhagic diathesis and hemorrhagic diseases. Variants of leukemia in childhood. |
|---|--|---|
| | | hemorrhagic diathesis and hemorrhagic |
| | | Immunodeficiency syndrome. |
| 4 | Infectious Diseases in Children, selected issues; Immunization | minumodenciency syndrome. |
| | issues, illinoineuron | Organization of vaccination. Intestinal diseases, selected issues Acute respiratory diseases, selected issues. |

5.2. Sections and types of studies

| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|-----|------------------------------------|----|---|---|----|-----|-----|----|----------------|
| 1 | General questions of Pediatrics | 8 | | | 25 | | | 10 | |
| 2 | The pathology of infancy | 20 | | | 50 | | | 25 | |
| 3 | The pathology of older children | 38 | | | 70 | | | 50 | |

| 4 | Infectious Diseases in | 4 | | | | 24 | |
|---|------------------------|----|--|-----|--|-----|-----|
| | Children, selected | | | | | | |
| | issues; Immunization | | | | | | |
| | Total | 70 | | 145 | | 145 | 360 |

6. Interactive forms of studies

| No | Name of the course section | Interactive forms of studies | Duration (hours) | | |
|----|--------------------------------|---|------------------|--|--|
| 1 | General questions of | Situational problems with the standards | 3 | | |
| | Pediatrics | of answers. The method of small groups. | | | |
| | | Analysis of specific clinical situations. | | | |
| 2 | The pathology of infancy | Situational problems with the standards | 6 | | |
| | | of answers. The method of small groups. | | | |
| | | Analysis of specific clinical situations. | | | |
| 3 | The pathology of older | Situational problems with the standards | 23 | | |
| | children | of answers. The method of small groups. | | | |
| | | Analysis of specific clinical situations. | | | |
| | Total (hours) | | | | |
| | Total (% of in-class learning) | | | | |

7. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No. | Name of the course section | Types of the unsupervised work | Forms of control |
|-----|------------------------------------|--|---|
| 1 | General questions of Pediatrics | The study of educational material for primary and secondary literature, lecture material. Presentation on the topic "Infant's diet: | Oral presentation. Written material checking. |
| 2 | The pathology of infancy | international guidelines". Preparation of multimedia presentations on the topics "Growth disorders" and "International approach to the treatment of anemia in children" | Oral presentation. Written material checking. |
| 3 | The pathology of older children | Preparation of multimedia presentations on the topics "Cardiac arrhythmia" and "Ketoacidosis". | Oral presentation. Written material checking. |

8. Forms of control

8.1. Forms of current control

- Oral: recitation on topic sessions, interview, assessment of the report, the defense of the medical history, clinical examination of the patient, analysis of multimedia presentations and

slideshows:

- Written: test control on paper, essays, summaries, writing abstracts on the topics of missed practical lessons, solving clinical case studies, verification of educational histories.

8.2.

Stages of examination

- 1. Stage tests;
- 2.Stage questions on theory (2) and clinical cases (2).

Questions for a pass/fail test and an examination, a theme list of test collections and situational problems are shown at the section 'Set of the evaluation tools for the current control and interim assessment of students'.

9. Library and information materials of the course

9. Maintenance of the course

9.1. The basic literature.

- 1. Essentials of Clinical Examination Handbook. [Электронный ресурс]/ Y. Shi [и др.]. -8th ed.: Thieme, 2018- URL: https://medone-physical.com/html/deach-2251020. St 84821074
- education.thieme.com/ebooks/2251929#/ebook_2251929_SL84831974
- 2. Krieger E. A. Pediatric infectious diseases [Электронный ресурс]: учебное пособие/ E. A. Krieger, O. V. Samodova. -Архангельск: Изд-во Северного государственного медицинского университета, 2018. -114 с.- URL: <a href="http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/K83-938097
- 3. Krukemeyer M. Introductory Guide to Medical Training. From Basic Sciences to Medical Specialties [Электронный ресурс]/ M. Krukemeyer. -1st ed.: Thieme, 2015-URL: https://medone-

education.thieme.com/ebooks/2093828?fromSearch=true#/ebook 2093828 SL80527499

9.2. Supplementary literature.

- 1. Londhe VA. Blueprints. Clinical Cases in Pediatrics: 2nd (second) Edition. Lippincott Williams & Wilkins. 2006.
- 2. Toy E, Briscoe D. Case Files Pediatrics, Fourth Edition (LANGE Case Files). The McGraw-Hill Companies, Inc. 2012.
- 3. Ewer A, Barrett T, Diwakar V. Core Clinical Cases in Paediatrics: a problem-solving арргоаch. Издательство Oxford University Press Inc. 2005.
- 4. Ghai O.P. Essential Pediatrics [Tekct]/ O. P. Ghai; ed.: O. P. Ghai, V. K. Paul, A. Bagga. -7th. ed.: CBS Publishers & Distributors, 2010. -768 p.: il.
- 5. Krieger E. A. Pediatric infections in a nutshell [Электронный ресурс]: a manual for medical students/ E. A. Krieger, O. V. Samodova. -Архангельск: Изд-во Северного государственного медицинского университета, 2018. -111 с.- URL: http://nb.nsmu.ru/cgi-
- <u>bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21S</u> <u>TN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02</u> =1&S21P03=I=&S21STR=elb/K83-681252
- 6. Marcdante K. J. Nelson Essentials of Pediatrics [Teκct]/ K. J. Marcdante, R. M. Kliegman. -7th ed., international ed.. -Canada: ELSEVIER saunders, 2015. -754 c.: il.
- 9.3. List of the Internet resources required for mastering of the course (module)*

| 1 | Database «Scopus» | http://www.scopus.com/ |
|---|--|-------------------------|
| 2 | Database "Pubmed" | http://www.pubmed.com/ |
| 3 | Electronic archive of AAP publications | www.aap.com |
| 4 | Cochrane library | http://www.cochrane.org |
| 5 | Electronic library NSMU | http://lib.nsmu.ru/lib/ |

- 9.4. List of the information technologies used in the educational process of the course (module)
- software: certified, license programs of general and educational assignment, information & reference systems Garant, Consultant and etc.

Software:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения всех | Адрес (местоположение) помещений для |
|--|--------------------------------------|
| видов учебной деятельности, предусмотренной | проведения всех видов учебной |
| учебным планом, в том числе помещения для | деятельности, предусмотренной |
| самостоятельной работы, с указанием перечня | учебным планом (в случае реализации |
| основного оборудования, учебно-наглядных | ФГБОУ ВО СГМУ (г. Архангельск) |
| пособий и используемого программного | Минздрава России программы в сетевой |
| обеспечения | форме дополнительно указывается |
| | наименование организации, с которой |
| | заключен договор) |
| Учебная аудитория для проведения занятий | 163000, г. Архангельск, просп. |
| лекционного типа № 2102 имени Н.П. Бычихина, | Троицкий, д. 51 |
| административный учебный корпус, 1 этаж | |
| а) перечень основного оборудования: | |
| Комплект учебной мебели (столы, стулья, | |
| экран,доска) рабочее место преподавателя, | |
| рабочие места для обучающихся на 300 мест. | |
| б) наборы демонстрационного оборудования | |
| проектор, моноблок, экран, колонки | |
| в) перечень учебно-наглядных пособий: | |
| схемы, таблицы | |
| г) используемое программное обеспечение: | |
| Kaspersky endpoint Security. Номер лицензии | |
| 26FE-191125-134819-1-8403. | |
| MS Office 2007. MS Win Starter 7. MS Windows | |
| Prof 7 Upgr. MS Windows Server CAL 2008 Device | |
| САL. Номер лицензии 46850049, бессрочно | |
| Radmin Viewer 3. Radmin Server 3. Номер | |
| документа 11001793 | |
| Traffic inspector. Лицензионное соглашение | |
| №1051-08 от 10.04.2008, бессрочно | |
| Учебная аудитория для занятий семинарского | 163059, Архангельская область, г. |
| типа, групповых и индивидуальных | Архангельск, ул. Ильича, д.60 |
| консультаций, текущего контроля и | |
| промежуточной аттестации № 39, 4 этаж | |
| Договор № 373 от 27.04.2017 года об | |
| организации практической подготовки | |
| обучающихся между ФГБОУ ВО СГМУ (г. | |
| Архангельск) Минздрава России и ГБУЗ | |

Архангельской области «Архангельская городская клиническая больница №6». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран ,доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, ростомер, фонендоскоп, весы с ростомером г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского 163062, Архангельская область, типа. групповых И индивидуальных Архангельск, ул. Ярославская, д. 42 консультаций, текущего контроля промежуточной аттестации № 42, 5 этаж главного корпуса Договор № 606 от 26.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и Архангельской области «Архангельская городская клиническая больница №7». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, весы с ростомером, лента измерительная, светофонендоскоп, тазомер, термометр, тонометр г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарского

текущего

И

индивидуальных

контроля

групповых

типа,

консультаций,

163062, Архангельская область, г. Архангельск, ул. Ярославская, д. 42

промежуточной аттестации № 44,5 этаж главного корпуса

Договор № 606 от 26.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская городская клиническая больница №7». Срок действия Договора — 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, весы с ростомером, лента измерительная, светофонендоскоп, тазомер, термометр, тонометр

г) используемое программное обеспечение:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Тraffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарного типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 213 учебный корпус, 2 этаж

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 28 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, робот-симулятор ребенка 6 лет с комплектом, манекен "ВитруКИД" ребенка 8лет отработки лечебно-реанимационных действий в педиатрии, манекен-имитатор ребенка 9 мес. электронный "ВиртуБЭБИ" с ЭКГ симулятором, манекен новорожденного для аускультации и сердечно-легочной реанимации, фантом головы младенца для интубации до 1года, манекен ребенка новорожденного Stap для обработки люмбальной пункции. робот симулятор ребенка.

г) используемое программное обеспечение:

Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно 163001, г. Архангельск, просп. Троицкий, д. 180

Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Симуляционный класс № 409, учебный корпус, 4 163001, г. Архангельск, просп. Троицкий, этаж: Кабинет лечения пациентов детского д. 180 возраста для отработки навыков. перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины кровать для новорожденных кн-1, кровать функциональная детская с матрацем, кровать функциональная кфз-01-мск, тумба, стол, столик манипуляционный мск-549-02-мск", шкаф медицинский мд 2 1670/ss, блок фототерапии xh, инкубатор для новорожденных бэбигард 1101, электроотсос, робот-симулятор ребенка 6 лет с комплектом(ноутбук и имитатор прикроватного монитора), манекен "витрукид" отработки ребенка 8лет для лечебнодействий реанимационных В педиатрии, манекен-имитатор ребенка 9 мес. электронный "виртубэби" с экг симулятором, манекен новорожденного для аускультации и сердечнолегочной реанимации, фантом головы младенца для интубации до 1года, манекен ребенка новорожденного stap для обработки люмбальной пункции, кровать функциональная детская с матрацем, робот симулятор ребенка Учебная аудитория для занятий семинарского 163001, г. Архангельск, просп. Троицкий, типа, групповых И индивидуальных д. 180 консультаций, текущего контроля учебный промежуточной аттестации № 410 корпус, 4 этаж (кабинет для дебрифинга) а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучающихся на 12 мест. б) наборы демонстрационного оборудования ноутбук, проектор, телевизор, колонки, маркерная доска в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к занятиям по всем темам практическим дисциплины г) используемое программное обеспечение: Kaspersky endpoint Security. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device САL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Homep документа 11001793 Traffic inspector. Лицензионное соглашение

№1051-08 от 10.04.2008, бессрочно

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education "NORTHERN STATE MEDICAL UNIVERSITY" of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty of General Practitioner

A. K. Sherstennikova

June 26th 2020

SYLLABUSOF THE DISCIPLINE

Discipline Pediatric Surgery

Field of training 31.05.01 General Medicine

Year (s) of study / term (s) V/9

Form of the interim assessment Credit

Department of Pediatric Surgery

Discipline workload 72 (academic hours)/2(credits)

Approved at the department meeting

Minutes No.

June 20th 2020

Head of the department

I.A. Turabov

Author and compiler:

Yanitskaya Maria Yurievna, Associate Professor of the Department of Pediatric Surgery, Candidate of Medical Sciences

1. Goal and tasks of the mastering of the course

| Goal of the discipline | The goal of the discipline is to provide students with the necessary information on semiotics, clinical manifestations, diagnostics, differential diagnostics, among children with surgical pathology, on the emergency care and prevention of various surgical diseases, the most common malformations and critical conditions. |
|-------------------------|---|
| Tasks of the discipline | to examine children with a variety of surgical pathologies; to diagnose malformations, surgical diseases, tumors, and critical conditions among children; to provide emergency care for children; to solve questions about the tactics of further treatment and follow-up; to solve issues of prevention of surgical pathology and its complications in children. |

2.Position of the course (module) within the structure of the educational program

The program is drawn up following the requirements of the Federal State Education Standard (FSES) in the training field of 31.05.01 «General medicine».

Pediatric surgery belongs to a professional cycle of disciplines.

The main knowledge necessary for studying of discipline are formed:

- in a cycle of humanitarian and social and economic disciplines (bioethics; psychology, Latin; foreign language);
- *in a cycle of mathematical, natural-science, medicobiological disciplines* (physics and mathematics; medical informatics; chemistry; biology; biochemistry, human anatomy, topographical anatomy; histology, embryology, cytology; normal physiology; pathological anatomy, pathophysiology; microbiology, virology; immunology, clinical immunology; pharmacology);
- *in a cycle of medico-professional and clinical disciplines* (operative surgery and topographical anatomy, radiodiagnosis and therapy, the general, faculty and hospital surgery, traumatology and orthopedics, anesthesiology and resuscitation, pediatrics).
- 3. List of the planned learning outcomes of the course (module) in connection to the planned outcomes of the mastering of the educational program

Competences formed as a result of the course mastering:

| Codes of the formed competences | Competences | | | |
|--|---|---|--|--|
| PC -No | Professional compete | ences | | |
| 10-30 | Know | Be able to (can) | Master (be a master in) | |
| PC-2 ability and readiness to perform preventive medical examinations, periodic health examinations and provide follow-up care | - Clinical anatomy of the chest, abdominal cavity and retroperitoneal space, including age characteristics; - The main issues of normal and pathological physiology in surgical diseases in children of different age groups; - The interrelation of the functional systems of the body and the levels of their regulation, the causes of the occurrence of pathological processes in the body, the mechanisms of their development and clinical manifestations. Normative documents (orders of the Ministry of Health of the Russian Federation) governing the procedure for follow up healthy children and children with chronic diseases | - take a complete medical history of the patient with surgical diseases - collect biological, medical, psychological and social information - Conduct examination of patients (examination, external examination, etc.) with surgical diseases - Obtain information about the disease, identify general signs of the disease, assess the severity of the children's condition Refer the patient to the appropriate specialist for consultation - Carry out diagnostics of acute inflammatory and infectious diseases in children - Determine the need for special methods investigation (laboratory, X-ray, radioisotope, functional, etc.) | - Obtaining primary information from the patient and / or the patient's legal representatives - Conducting an initial visual examination (physical examination) of the children - Examination of the patient's history - Identifying the first signs surgical pathology in children - Evaluation of the patient's health status, identification of pathologies - Formation of epicrisis; - Execution of all the necessary medical documentation provided for by regulatory documents for conducting preventive medical examinations, medical examination and follow-up of healthy children and children with chronic surgical diseases | |

| | | - Conduct medical | |
|----------------------|---------------------------|----------------------|--------------------------|
| | | examination of the | |
| | | children | |
| PC-6 | - Etiology and | - Collect a | - The skills of |
| ability to recognize | pathogenesis of surgical | complete medical | obtaining primary |
| patient's major | diseases and | history of the | information from the |
| pathological | emergencies in children | patient | patient (complaints, |
| conditions, | of various age groups, | - Conduct a | medical history and |
| symptoms, | including the neonatal | physical | life history), |
| syndromes, | period | examination of the | - The skills of |
| nosological forms in | - The clinical picture of | patient, obtain | identifying the |
| accordance with the | pathological conditions, | information about | characteristics of the |
| International | symptoms, syndromes | the pathology, | patient's environment |
| Statistical | of diseases, nosological | identify general | and life, identifying |
| Classification of | forms (related to | and specific signs | the characteristics of |
| Diseases and Related | surgical diseases in | of the surgical | the patient's working |
| Health Problems, | pediatrics) in | disease, assess the | conditions (in |
| 10th revision | accordance with ICD | severity of the | adolescents); |
| | 10, and its features in | patient's condition | - Skills of initial |
| | children of different age | - Draw up a plan | examination |
| | groups, including the | for examining a | (consultation); |
| | neonatal period. | patient, clarify the | - Skills of re- |
| | - Diagnostics (clinical, | scope of rational | examination |
| | laboratory, | methods of | (consultation); |
| | instrumental) and | examining a | - Skills for identifying |
| | differential diagnostics | patient in order to | specific clinical signs |
| | of surgical diseases and | obtain complete | of surgical diseases in |
| | emergency conditions | and reliable | children of different |
| | in children of different | diagnostic | age groups, including |
| | age groups, including | information in the | the neonatal period. |
| | the neonatal period. | shortest possible | 6. Skills for assessing |
| | -Formulation of the | time; | the severity of the |
| | diagnosis for surgical | - Determine the | patient's condition; |
| | diseases and emergency | tactics of | - Methods for the |
| | conditions in children | examining the | diagnosis of surgical |
| | of different age groups. | patient in | diseases in children |
| | - Standards for the | accordance with | and adolescents; |
| | provision of medical | the established | - Skills for describing |
| | care for surgical | rules and | the revealed |
| | diseases and emergency | standards | pathology and |
| | conditions in children | - Diagnose | formulating the |
| | of different age groups. | surgical disease in | primary diagnosis, |
| | | children according | epicrisis. |
| | | to approved | - Medical logic. |
| | | standards, clinical | |
| | | guidelines, | |
| | | consensus | |
| PC-8 | - General issues of | - Provide | - Initial examination |
| ability to determine | organizing surgical care | assistance, | skills |
| the management | for children and | including | - The reasons for the |
| tactics of patients | adolescents; | emergency, in | occurrence of |
| with various | organization of work of | accordance with | pathological processes |

nosological forms

ambulance and emergency care for children

- Methods of examination of children of various age groups with surgical diseases and emergency conditions
- Methods of laboratory, instrumental, functional research in children of various age groups with surgical diseases and emergency conditions.
- Criteria for assessing the severity of a patient's condition with surgical diseases and emergency conditions.
- Surgical tactics of a pediatrician.
 Principles of conducting surgical interventions using the necessary manipulations in children.
- Criteria for diagnosing possible complications of surgical diseases 8. Features of the provision of emergency care, intensive care for surgical diseases and critical conditions in children of different age groups.

the established signs of a surgical disease, an emergency;

- To determine the need for special examination methods (laboratory, X-ray, radioisotope, functional, etc.), -Carry out tests for compatibility and perform intravenous blood transfusion, identify possible transfusion reactions and complications and fight them
- Develop a professional algorithm for patient management and prevention of complications Issue all the
- Issue all the necessary medical documentation provided for by healthcare legislation

in the body, the mechanisms of their development and clinical manifestations - Principles and techniques for

- techniques for providing emergency care and intensive therapy for surgical diseases and emergency conditions in children of various age groups, including the neonatal period.
- The basics of therapy for shock and blood loss.
- Indications and contraindications for transfusion of blood and its components.
- Methods of diagnosis and treatment of the most common surgical diseases in children of different age groups, including the neonatal period Skills for evaluating
- the results of general clinical and biochemical studies of biological fluids; functional, instrumental and other special methods of patient examination
- Fundamentals of pharmacotherapy for surgical diseases and emergency conditions in children and adolescents.
- Fundamentals of Microbiology.
- Fundamentals of radiology and radiology; preparation and evaluation of the results of X-ray examination of the

| | | | respiratory system, |
|--------------------------|---------------------------|---------------------|-------------------------|
| | | | cardiovascular |
| | | | system, GIT, kidneys |
| | | | and urinary tract; |
| | | | - The foundations of |
| | | | medical ethics and |
| | | | deontology. |
| PC-10 | - General issues of the | - Provide medical | - The main causes of |
| readiness to provide | organization of medical | care, including | pathological processes |
| medical care for | care for children and | emergency, in | in the body, the |
| sudden acute diseases | the organization of | accordance with | mechanisms of their |
| and conditions, | work of ambulance and | the established | development and |
| exacerbation of | emergency care for the | signs of the | clinical manifestations |
| chronic diseases that | child population | disease; | - The basics of water- |
| do not involve a | - Features of the | - To determine the | electrolyte |
| threat to patient's life | provision of primary | need for special | metabolism: acid-base |
| and do not require | health care in case of | examination | balance, possible |
| emergency medical | sudden acute diseases, | methods | types of their |
| care | conditions, | (laboratory, X-ray, | disorders in surgical |
| | exacerbation of chronic | radioisotope, | diseases in children of |
| | diseases that are not | functional, etc.) | different age groups |
| | accompanied by a threat | - Determine the | - Pathophysiology, |
| | to the patient's life and | blood group, carry | therapy of shock and |
| | do not require | out tests for | blood loss, |
| | emergency medical | compatibility and | pathophysiology of |
| | care, emergency | perform | the wound process |
| | medical care for | intravenous blood | - Physiology and |
| | surgical diseases of the | transfusion, | pathophysiology of |
| | abdominal and thoracic | identify possible | the blood coagulation |
| | cavity, traumatic | transfusion | system, indications |
| | injuries of the | reactions and | and contraindications |
| | abdominal organs and | complications and | for transfusion of |
| | retroperitoneal space in | fight them | blood and its |
| | children of different age | - To develop a | components |
| | groups. | professional | - Methods of |
| | - Methods of | algorithm for | diagnosis and |
| | examination of patients | patient | treatment of the most |
| | with the above | management and | common surgical |
| | pathological conditions | prevention of | diseases in children of |
| | in children of different | possible | different age groups, |
| | age groups. | complications of | including the neonatal |
| | - Methods of | surgical diseases | period |
| | laboratory, | - Issue all the | - Skills in assessing |
| | instrumental, functional | necessary medical | the results of general |
| | research in children of | documentation | clinical and |
| | various age groups, | provided for by | biochemical studies of |
| | including the neonatal | healthcare | biological fluids, |
| | period | legislation | functional, |
| | - Criteria for assessing | | instrumental and other |
| | the severity of the | | special methods of |
| | patient's condition | | patient examination |
| | | | |

| | -1 44: | Duin studen 1 |
|----------|--------------------|--|
| 1 | al tactics of a | - Principles and |
| pediatri | | methods of treatment |
| - Metho | | for sudden acute |
| | ing surgical | diseases, conditions, |
| interver | tions using the | exacerbation of |
| necessa | ry | chronic diseases that |
| manipu | lations in | are not accompanied |
| children | of different age | by a threat to the |
| groups, | including the | patient's life and do |
| neonata | l period | not require emergency |
| - Possib | le | medical care for |
| complic | eations of | surgical diseases of |
| 1 - | interventions | the abdominal and |
| | ical diseases of | thoracic cavity, |
| _ | ominal and | traumatic injuries of |
| thoracio | cavity, | the abdominal and |
| | ic injuries of the | retroperitoneal organs |
| abdomi | - | in children of various |
| retroper | itoneal organs | ages groups |
| _ | ren of different | - The basics of |
| age grou | | pharmacotherapy for |
| | | the above pathological |
| | | conditions in children, |
| | | including the neonatal |
| | | period |
| | | - Fundamentals of |
| | | Microbiology |
| | | - Fundamentals of |
| | | radiology and |
| | | |
| | | radiology; preparation and evaluation of the |
| | | |
| | | results of X-ray |
| | | examination of the |
| | | respiratory system, |
| | | cardiovascular |
| | | system, |
| | | gastrointestinal tract, |
| | | kidneys and urinary |
| | | tract; |
| | | - The foundations of |
| | | medical ethics and |
| | | deontology. |

4. Volume of the course (module) and types of the academic classes: Total workload of the course is **2** credits

| | Type of the academic work | Total hours | Term |
|---------------------|---------------------------|--------------------|------|
| Discipline workload | | | |
| (in academic hours) | Lectures (L) | 10 | 9 |

| S | Seminars (Sem.) | | |
|---|--------------------------------------|----|---|
| P | Practical classes (PC) | | |
| C | Clinical practicals (CP) | 25 | 9 |
| L | Laboratory-based practicals (LBP) | | |
| S | Simulation-based practicals (SBP) | | |
| P | Preparation for the examination (PE) | | |
| P | Preparation for the credit (PC) | | |
| E | Exam consultations (EC) | | |
| C | Coursework (CW) | | |
| U | Unsupervised work (UW) (total) | 37 | 9 |
| E | Examination control (EC) | | |
| T | Fotal course workload | 72 | 9 |
| | | | |

5. Contents of the course:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|-----|---|---|
| 1 | 2 | 3 |
| I. | Acute processes in abdominal cavity in children. Acute appendicitis, peritonitis. | Acute appendicitis in children: etiology, pathogenesis, classification, features of a clinical presentations depending on age, duration of symptoms, localization of an appendix, the principles of surgical treatment. Differential diagnostics of acute appendicitis in children: a pathology range (mesoadenitis, coprostasis, a helminthic invasion, gastrointestinal diseases, holecystitis, diseases of an urinary system, gynecologic diseases, Schenlein-Genoch, pneumonia, intussusception). Complications of an acute appendicitis (the infiltrate, abscess, peritonitis local and spread). Clinical manifestations, diagnostics, treatment tactics |
| II. | Emergencies in newborn | |
| | Esophageal atresia. | Etiology, pathogenesis, clinical |
| | Intestinal obstruction. | presentations, diagnostics and surgical |
| | Anorectal malformations | treatment of esophageal atresia. VATER, |
| | Congenital diaphragmatic hernia. | VACTERL, CHARGE associations. |
| | Gastroschisis and omphalocele. | Etiology, pathogenesis, clinical manifestations, diagnostics and treatment of intestinal obstruction at various levels: proximal (high) and distal (low) forms. Malrotation, volvulus: clinical presentations, diagnostics and surgical treatment. Etiology, pathogenesis, clinical presentations, diagnostics and surgical treatment of nonperforated anus (anal |

| | | atresia) with fistulas and without fistulas, cloaca. Tactics of the pediatrician and a condition of transportation of newborns with congenital malformations to the specialized center. Etiology, pathogenesis, clinical presentations, diagnostics and surgical treatment of congenital diaphragmatic hernia. Preparation and indications to surgery. Etiology, pathogenesis, clinical manifestations, diagnostics and treatment of gastroschisis and omphalocele. Tactics of the pediatrician and a condition of transportation of newborns with congenital malformations to the specialized center. |
|------|--|---|
| III. | Intussusception in children. Adhesive obstruction | Intussusception in children. Frequency. Classification. Pathogenesis, clinical presentations of intussusception, its feature depending on a disease stage. Additional methods of investigation for confirmation of the diagnosis. Tactics of treatment of intussusception, the indication to conservative (non operative) and surgical treatment. Methods of a conservative (non operative) reduction of the intussusception. Technology of surgery at intussusception. Classification of clinical forms of adhesive obstruction, clinical presentations, conservative and surgical treatment. |
| IV. | Gastrointestinal tract malformations | |
| | Hypertrophic pyloric stenosis Hirschsprung'sdisease | Etiology, pathogenesis, clinical presentations, diagnostics and surgical treatment of hypertrophic pyloric stenosis. Preparation and indications to surgery. Etiology, pathogenesis, clinical presentations, diagnostics and surgical treatment of Hirschsprung's disease in newborn, infants and older children. Preparation and indications to surgery. |
| V. | Surgical infection in children | |
| 7. | Acute hematogenous osteomyelitis Acute destructive pneumonia in children | Etiology and pathogenesis of acute hematogenous osteomyelitis. Modern approaches in diagnostics and treatment of acute hematogenous osteomyelitis. Features of pathogenesis and surgical treatment at osteomyelitis in children under one year |

Features of pathogenesis and surgical treatment at osteomyelitis of spongy and flat Principles of rehabilitation during recovery. Acute purulent destructive pneumonia: Classification, etiology and pathogenesis of development of complications. Clinical manifestations and surgical treatment of a pyothorax, pyopneumothorax, abscess of a lung, pyopneumomediastinit. Pleural puncture, drainage of a pleural cavity, thoracoscopical sanitation of a pleural cavity, puncture of intra pulmonary abscess: indications, technology of performance. Outcomes of acute purulent destructive pneumonia: residual cavities (bulla), fibrothorax. Urology and andrology of children's Malformations of kidneys and urinary tract. age. Malformations of kidneys and Classification. Surgical tactics of treatment urinary tract. and rehabilitation. Cryptorchidism, inguinal hernia, hydrocele, Inguinal hernia, hydrocele, varicocele, phymosis, varicocele, phymosis, syndrome of "an syndrome of "an edematous scrotum". edematous scrotum": Etiology, Hydronephrosis. pathogenesis, classification. Clinical Vesicouretral reflux. manifestations and diagnostics, surgical treatment. Varicocele. Etiology, pathogenesis, diagnostics. Modern methods of treatment (surgical, endovascular, laparoscopic). Hydronephrosis. Etiology, pathogenesis, diagnostics. Modern methods of treatment Vesicouretral reflux. Etiology, pathogenesis, diagnostics. Modern methods of treatment

5.2. Sections and types of studies

| No. | Name of the course | L | S | P | CP | LBP | SBP | UW | Total |
|-----|-----------------------|----|----|---|----|-----|-----|----|-------|
| | section | | | | | | | | hours |
| 1. | Inflammatory surgical | 2 | 10 | | 5 | | | | 17 |
| | diseases in children | | | | | | | | |
| 2. | Urgent abdominal | 4 | 5 | | 5 | | | | 14 |
| | surgery | | | | | | | | |
| 3. | Neonatal surgery | 2 | 10 | | 5 | | | | 17 |
| 4. | General surgery | 2 | 5 | | 5 | | | | 12 |
| 5. | Urology and | 2 | 5 | | 5 | | | | 12 |
| | andrology | | | | | | | | |
| | Total: | 12 | 35 | | 25 | | | | 72 |

6. Interactive forms of studies

| No | Name of the course section | Interactive forms of studies | Duration (hours) |
|---------------|---|------------------------------|------------------|
| 1. | Inflammatory surgical | Role-playing game | 3 |
| | diseases in children | | |
| 2. | Urgent abdominal surgery | Role-playing game | 3 |
| 3. | Emergences in newborn Kais | | 3 |
| 4. | General surgery Case history (discussion) | | 4 |
| Total (hours) | | | 13 |
| | Total (% of in-class learning) 18% | | |

7. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No | Name of the course section | Types of the unsupervised work | Forms of control |
|----|----------------------------|--|------------------|
| 1. | Inflammatory surgical | Preparation of the report according to | |
| | diseases in children | subject in the form of presentation | Test in Moodle |
| | | Case discussion | |
| 2. | Urgent abdominal surgery | Preparation of the report according to | |
| | | subject in the form of presentation | Test in Moodle |
| | | Case discussion | |
| 3. | Emergences in newborn | Preparation of the report according to | |
| | | subject in the form of presentation | Test in Moodle |
| | | Case discussion | |
| 4. | General surgery | Preparation of the report according to | |
| | | subject in the form of presentation | Test in Moodle |
| | | Case discussion | |
| 5. | Urology and andrology | Preparation of the report according to | |
| | | subject in the form of presentation | Test in Moodle |
| | | Case discussion | |

8. Forms of control

- 8.1. Current forms of control
- oral (an interview, a report, a colloquium, presentations of projects)
- written (checking of tests, review papers, essays, abstracts, lecture notes, solving of practical tasks, preparation of a case history).

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the sevtion 'Evaluation tools'.

- 8.2. Forms of the interim assessment (pass/fail test, examination, term paper) Stages of the interim assessment
- 1. Stage Knowledge tests (student's auditory on the department) (name of the stage)

2. Stage–Knowledge tests
Describing of the X-Ray (student's auditory on the department) (name of the stage)
3. Stage - __Knowledge tests Cases discussion (name of the stage)

Questions for a pass/fail test and an examination, a theme list of test collections and sit-uational problems are shown at the section 'Set of the evaluation tools for the current control and interim assessment of students'.

9. Library and information materials of the course

9.1. Compulsory literature:

- 1. Chaurasia's B. D.. Human Anatomy. Regional and Applied. Dissection and Clinical [Текст]/ B. D. Chaurasia's Vol. 3: Head-Neck Brain/ ed.: G. K. Garg, PS Mittal, M. Chandrupatla. -6 th ed.. -New Delhi, 2013. -463 p.
- 2. Chaurasia's B. D.. Human Anatomy. Regional and Applied. Dissection and Clinical [Tekct]/ B. D. Chaurasia's Vol. 2: Lower Limb. Abdomen and Pelvis/ ed.: G. K. Garg, PS Mittal, M. Chandrupatla. -6 th ed.. -New Delhi, 2013. -463 p.
- 3. Chaurasia's B. D. Human Anatomy. Regional and Applied. Dissection and Clinikal [Text]/ B. D. Chaurasia's Vol.1: Upper Limb and Thorax: CBS Publishers&Distributors, 2013. -311 p.: il.
- 4. Essentials of Clinical Examination Handbook. [Электронный ресурс]/ Y. Shi [и др.]. -8th ed.: Thieme, 2018- URL: https://medone-education.thieme.com/ebooks/2251929#/ebook_2251929_SL84831974
- 5. Детская хирургия [Электронный ресурс] : учебник/ ред.: Ю. Ф. Исаков, А. Ю. Разумовский. -Москва: ГЭОТАР-Медиа, 2016. -1040 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970439593.html
- 6. Турабов И. А. Детская хирургия: гнойная хирургия [Электронный ресурс]: учебное пособие/ И. А. Турабов, М. П. Разин, Н. В. Марков, М. Ю. Яницкая. -Архангельск: Изд-во Северного государственного медицинского университета, 2016. -124 с.: ил.- URL: <a href="http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/T%2086-282007
- 7. Яницкая М. Ю. Неотложная хирургия новорожденных [Электронный

ресурс]: учебное пособие/ М. Ю. Яницкая, И. А. Турабов, Н. В. Марков. -Архангельск: Изд-во Северного государственного медицинского университета, 2017. -138 с.- URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DB N=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21 CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/Я%2062-298636

9.2. Supplementary literature

- 1. Laparoscopy in children [Text]: / [Schier F.]; Springer, 2003. –148 p. 9.3.
- 2. Леванович В. В. Амбулаторная хирургия детского возраста [Электронный ресурс]: учеб. пособие/ В. В. Леванович, Н. Г. Жила, И. А. Комиссаров. Москва: ГЭОТАР-Медиа, 2014. -144 с.: ил.- URL: http://www.studentlibrary.ru/book/ISBN9785970430163.html

9.3. Internet resources

- 1. www.pubmed.com
- 2. www.bibliomed.ru
- 3. www.consilium-medicum.com
- 4. http://www1.worldbank.org/hnp/
- 5. http://www1.worldbank.org/hnp/publichealth.asp
- 6. http://www.undp.org
- 7. http://www.who.int
- 8. http://www.elibrary.ru
- 9. http://www.scopus.com/
- 10. www.sagepub.com
- 11. http://iopscience.iop.org/jornals?type=archive
- 12. www.oxfordjournals.org/
- 13. www.rsc.org/
- **9.4.** List of the information technologies used in the educational process of the course (module) software: certified, license programs of general and educational assignment, information & reference systems Garant, Consultant and etc.

Software:

Kaspersky endpoint Security. Hoмep лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номер документа 11001793

Traffic inspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно

10. Material and technical facilities necessary for the educational process

| Наименование помещений для проведения всех | Адрес (местоположение) помещений для |
|---|---|
| видов учебной деятельности, предусмотренной | проведения всех видов учебной деятельности, |
| учебным планом, в том числе помещения для | предусмотренной учебным планом (в случае |

реализации ФГБОУ ВО СГМУ (г. самостоятельной работы, с указанием перечня основного оборудования, учебно-наглядных пособий Архангельск) Минздрава России программы в и используемого программного обеспечения сетевой форме дополнительно указывается наименование организации, с которой заключен договор) Учебная 163000, г. Архангельск, просп. Троицкий, д. 51 аудитория для проведения занятий лекционного типа №2102 имени Н.П. Бычихина, административный учебный корпус, 1 этаж а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран,доска) рабочее место преподавателя, рабочие места для обучабщихся на 300 мест. б) наборы демонстрационного оборудования проектор, моноблок, экран, колонки в) перечень учебно-наглядных пособий: схемы, таблицы г) используемое программное обеспечение: Kaspersky endpoint Security. Номерлицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793 Trafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163002, Архангельская область, г. групповых и индивидуальных консультаций, Архангельск, проспект Обводный канал, д. 7, текущего контроля и промежуточной аттестации № корп. 7 57а, 3-й этаж, здание лечебного корпуса № 3 Договор № 560 от 11.07.2017 года об организации практической подготовки обучающихся между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава ГБУЗ Архангельской области И «Архангельская областная детская клиническая больница имени П.Г. Выжлецова». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору. а) перечень основного оборудования: Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихсяна 14 мест. б) наборы демонстрационного оборудования ноутбук, проектор в) перечень учебно-наглядных пособий: Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, негатоскоп г) используемое программное обеспечение: KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403. MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793 Trafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно Учебная аудитория для занятий семинарского типа, 163002, Архангельская область, г. и индивидуальных Архангельск, проспект Обводный канал, д. 7, групповых консультаций, текущего контроля и промежуточной аттестации № 1, корп. 7

4-й этаж, здание лечебного корпуса № 3

Договор № 560 от 11.07.2017 года об организации практической подготовки обучающихся, заключаемый между ФГБОУ ВО СГМУ (г. Архангельск) Минздрава России и ГБУЗ Архангельской области «Архангельская областная клиническая больница имени П.Г. Выжлецова». Срок действия Договора – 5 лет. Оборудование согласно Приложению № 3 к Договору.

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 14 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины, весы с ростомером, негатоскоп

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тrafficinspector. Лицензионное соглашение №1051 08 от 10.04.2008, бессрочно

Учебная аудитория для занятий семинарного типа, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации № 410 учебный корпус, 4 этаж

а) перечень основного оборудования:

Комплект учебной мебели (столы, стулья, экран, доска) рабочее место преподавателя, рабочие места для обучающихся на 12 мест.

б) наборы демонстрационного оборудования ноутбук, проектор

в) перечень учебно-наглядных пособий:

Наглядные пособия, раздаточный материал к практическим занятиям по всем темам дисциплины

г) используемое программное обеспечение:

KasperskyendpointSecurity. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно

Radmin Viewer 3. Radmin Server 3. Номердокумента 11001793

Тrafficinspector. Лицензионное соглашение №1051-08 от 10.04.2008, бессрочно 163001, г. Архангельск, просп. Троицкий, д. 180