

Postgraduate Track Program: Clinical Medicine and Public Health

1. Olympiad Winner's Skill Set

To win the Olympiad, you should have a firm grasp of medical concepts and techniques, namely:

- basics of normal and pathological human anatomy;
- basics of normal and pathological human physiology;
- basics of etiology, pathogenesis, risk factors, clinical manifestations, principles of diagnostics of human diseases, and methods for their pharmaceutical and surgical treatment;
- basics of evidence-based medicine and organization of scientific research in medicine; analysis of findings; oral and written presentation of the data obtained;
- public health criteria; calculation and analysis of these criteria;
- features of infectious disease epidemiology; measures for infectious diseases prevention and control;
- approaches to health promotion; development of preventive measure programs.

2. List of Eligible Degree Programs

2.1. List of Master's Programs

32.04.01 Public Health

2.2. List of Doctoral Programs

3.3.1 Anatomy and Anthropology

3.3.3 Pathological Physiology

3.3.2 Pathological Anatomy

3.3.6 Pharmacology, Clinical Pharmacology

1.5.5 Human and Animal Physiology

3.1.30 Gastroenterology and Dietetics

3.1.28 Hematology and Blood Transfusion

3.1.29 Pulmonology

3.1.20 Cardiology

3.1.2 Maxillofacial Surgery

3.1.7 Dentistry

3.1.18 Internal Medicine

3.1.32 Nephrology

3.1.9 Surgery

3.1.19 Endocrinology

3.1.22 Infectious Diseases

3.2.2 Epidemiology

3.2.3 Public Health, Organization, and Sociology of Healthcare; Medical and Social Expertise

3. Program Content

Anatomy and Morphology

1. Basics of cell and tissue structure
2. Anatomy of the human body's major systems

Physiology

1. Cell physiology
2. Physiology of excitable tissues
3. Characteristics of body function regulation
4. General principles of the physiology of the body's major systems

Pathology

1. Fundamentals of general pathology: typical pathological changes and processes. Basic patterns in the development of pathological processes and conditions. Morphological changes in organs and tissues in pathological processes.
2. Fundamentals of clinical pathology: typical forms of pathology affecting tissues, organs, and organ systems.

Pharmacology

1. General pharmacology.
2. Drugs primarily impacting on the afferent part of the peripheral system.
3. Agents affecting efferent innervation.
4. Drugs influencing the central nervous system.
5. Drugs affecting the function of executive bodies and systems.
6. Drugs inhibiting inflammation and regulating immune processes.
7. Antimicrobial, antifungal, antiviral, antiparasitic, and antitumor agents.

General Medicine and Medical Care

1. Arterial hypertension. Classification. Clinical features. Diagnostics. Treatment.
2. Coronary heart disease. Etiology. Pathogenesis. Risk factors. Classification. Clinical manifestations. Diagnostics. Treatment.
3. Type 2 diabetes mellitus. Clinical manifestations, diagnostics. Groups of oral hypoglycemic drugs. Features of application.
4. Anemia. Differential diagnosis.
5. Pneumonia. Classification. Clinical manifestations. Diagnostics. Treatment.
6. Chronic obstructive pulmonary disease. Etiology. Clinical manifestations. Diagnostics. Treatment.
7. Acid-related diseases of the gastrointestinal tract. Classification. Clinical manifestations. Diagnostics. Treatment.
8. Inflammatory bowel diseases. Classification. Clinical manifestations. Diagnostics. Treatment.
9. Chronic hepatitis. Classification. Etiology. Diagnostics. Treatment. Complications.

10. Liver cirrhosis. Etiology. Classification. Clinical manifestations. Diagnostics. Principles of treatment. Complications.

11. Chronic kidney disease. Stages. Clinical manifestations. Diagnostics. Treatment.

Surgery

1. Procedure for examining a patient with abdominal pain. Differential diagnosis of abdominal pain. Acute diseases of abdominal cavity organs (appendicitis, cholecystitis, pancreatitis, complications of peptic ulcer disease, acute intestinal obstruction) and peritonitis. Diagnostic algorithm and treatment strategy in acute abdominal syndrome.

2. Structure of the anterior abdominal wall. Hernias of the anterior abdominal wall. Classification. Principles of surgical treatment.

3. Minimally invasive and robot-assisted operations in surgery. Organization of the operating room for video-endoscopic operations. Features of surgical access and manipulation in minimally invasive procedures. Laparoscopic cholecystectomy and appendectomy.

4. Principles of surgical repair of tissues. Surgical accesses and sutures. Vascular suture. Implantable medical items (stents, homo- and allografts, prostheses, implants). Methods for tissue fixation in surgery.

5. Perioperative medicine (asepsis and antisepsis, prevention and treatment of surgical infections, thromboembolic complications in surgical patients, fluid therapy and principles of nutritional support). Fundamentals of evidence-based medicine in surgery. Patient safety in surgery.

Dentistry and Oral Surgery

1. Therapeutic dentistry: classification, diagnosis, and treatment of hard tooth tissues diseases, pulpal and periapical pathology, periodontal and oral mucosa diseases.

2. Oral surgery: etiology, pathogenesis, pathological anatomy, clinical picture, diagnosis, treatment methods, routing of oral surgery patients.

Infectious Diseases

1. Morbidity: concept, causes, manifestations.

2. Classification of infectious diseases.

3. Epidemic process: definition, manifestations, components.

4. Sources of infections: concept, types of sources, classification of diseases by source.

5. Mechanisms and routes of transmission, transmission factors, and their interaction.

6. Susceptibility to infectious diseases, herd and individual immunity.

7. Immunoprophylaxis of infectious diseases: history and fundamentals of the method, types of immunobiological drugs, vaccination schedules.

Public Health

1. Public health and its determinants

2. Demography: subject matter, branches, rates, trends

3. Disability: definition, causes, trends, approaches to rehabilitation

4. Health research methods. Basics of statistics: organization of scientific research, types of statistical values, methods for evaluating the reliability of results and the relationships between values
5. Risk factors, classifications, methods for assessing risk factors
6. Prevention: types, goals, objectives, prevention effectiveness criteria
7. Prevention strategies: population strategy, high risk strategy, individual strategies

4. Recommended References

4.1. Reading List

Anatomy and Morphology

Sources in English	Topic
1. Essentials of anatomy and physiology/Valerie C. Scanlon, Tina Sanders. — 5th ed. A. David Company. 2007. 622 p. https://repository.poltekkes-kaltim.ac.id/1144/1/Essentials%20of%20Anatomy%20and%20Physiology%20(%20PDFDrive%20).pdf (free access).	1. Basics of cell and tissue structure 2. Anatomy of the human body's major systems
2. Sapin M.R., Kolesnikov. L.L., Nikitjuk D.B. Textbook of human anatomy: For medical students. In 2 volumes. Vol. 1/ Ed. by M.R. Sapin. - Second Ed. Moscow: New Wave Publishing Agency, 2019. 416 p. https://archive.org/details/006240629/page/5/mode/2up (free access).	1. Basics of cell and tissue structure 2. Anatomy of the human body's major systems
3. Tortora Gerard J. Principles of Anatomy and Physiology. 13th Edition. Wiley, 2012. 1536 p. https://archive.org/details/principlesofanat000tort_d4c9 (partial access).	1. Basics of cell and tissue structure 2. Anatomy of the human body's major systems

Sources in Russian	Topic
1. Анатомия человека [Электронный ресурс]: учебник / Сапин М.Р. - М.: ГЭОТАР-Медиа, 2020. Т. 1. https://jasulib.org/kg/wp-content/uploads/2022/04/2.-Сапин-М.Р.-Анатомия-человека-т.-1..pdf (free access).	1. Basics of cell and tissue structure 2. Anatomy of the human body's major systems
2. Анатомия и физиология человека: атлас / Д. Б. Никитюк, С. В. Ключкова, Н. Т. Алексеева; под ред. Д. Б. Никитюка. -	1. Basics of cell and tissue structure 2. Anatomy of the human body's major systems

Москва: ГЭОТАР-Медиа, 2023. 368 с. https://www.rosmedlib.ru/book/ISBN9785970480793.html (partial access).	
3. Большой атлас анатомии человека / пер. с англ. Ю. В. Букановой. Москва: Астрель, Кладезь, 2013. 192 с. https://msrabota.ru/content/book_docs/Винсент%20Перез%20-%20Большой%20атлас%20анатомии%20человека_.pdf (free access).	1. Anatomy of the human body's major systems
4. Сапин, М. Р. Анатомия человека. В 2 томах. Т. II: учебник / Под ред. М. Р. Сапина - Москва: ГЭОТАР-Медиа, 2013. - 456 с. https://www.rosmedlib.ru/ru/book/ISBN9785970425954.html (ограниченный доступ).	Anatomy of the human body's major systems

Physiology

Sources in English	Topic
1. Costanzo L. S. Physiology. 6th Edition. Elsevier, 2018. 516 p. https://archive.org/details/CostanzoPhysiology6thEditionC2018Txtbk (free access).	1. Cell physiology 2. Physiology of excitable tissues 3. Characteristics of body function regulation 4. General principles of the physiology of the body's major systems
2. Guyton and Hall textbook of medical physiology / John Hall. – 12th ed. Elsevier Science. 2010. 1091 p. https://repository.poltekkes-kaltim.ac.id/1147/1/Guyton%20and%20Hall%20Textbook%20of%20Medical%20Physiology%20(%20PDFDrive%20).pdf (free access).	1. Cell physiology 2. Physiology of excitable tissues 3. Characteristics of body function regulation 4. General principles of the physiology of the body's major systems
3. Normal physiology : textbook / ed. K. V. Sudakov. Moscow: GEOTAR-Media. 2022. 728 p. https://www.geotar.ru/lots/NF0023345.html (partial access).	1. Cell physiology 2. Physiology of excitable tissues 3. Characteristics of body function regulation 4. General principles of the physiology of the body's major systems

Sources in Russian	Topic
1. Лапкин М. М. Избранные лекции по нормальной физиологии. Москва: ГЭОТАР-Медиа, 2019. 544 с. https://www.studentlibrary.ru/en/book/ISBN9785970446782.html (partial access).	1. Cell physiology 2. Physiology of excitable tissues 3. Characteristics of body function regulation 4. General principles of the physiology of the body's major systems

<p>2. Ноздрачев А. Д. Нормальная физиология Москва: ГЭОТАР-Медиа, 2019. 1088 с. https://www.studentlibrary.ru/ru/book/ISBN9785970445938.html (partial access).</p>	<ol style="list-style-type: none"> 1. Cell physiology 2. Physiology of excitable tissues 3. Characteristics of body function regulation 4. General principles of the physiology of the body's major systems
<p>3. Нормальная физиология: Учебник / Н.А. Агаджанян, В.М. Смирнов. — 3-е изд., испр. и доп. М.: ООО «Издательство «Медицинское информационное агентство». 2012. 576 с. https://e-library.sammu.uz/uploads/books/Rus%20tilidagi%20adabiyotlar/Физиология/Н_А_Агаджанян_Нормальная_физиология.pdf (free access).</p>	<ol style="list-style-type: none"> 1. Cell physiology 2. Physiology of excitable tissues 3. Characteristics of body function regulation 4. General principles of the physiology of the body's major systems

Pathology

Sources in English	Topic
<p>1. Harsh Mohan. Textbook of pathology. Jaypee Brothers Medical Pub; 6th edition. 933 pages https://drive.google.com/file/d/1jhA1AqpsOIR7NE5MyWvd6nPyVIL7CMkK/view (free access).</p>	<ol style="list-style-type: none"> 1. Fundamentals of general pathology: typical pathological changes and processes. Basic patterns of development of pathological processes and conditions. Morphological changes in organs and tissues in pathological processes. 2. Fundamentals of clinical pathology: typical forms of the pathology of tissues, organs, and systems of organs
<p>2. Pathological anatomy edited by V.S. Paukov M.: GEOTAR-Media; 2022;752 https://www.geotar.ru/lots/NF0023226.html (partial access).</p>	<ol style="list-style-type: none"> 1. Fundamentals of general pathology: typical pathological changes and processes. Basic patterns of development of pathological processes and conditions. Morphological changes in organs and tissues in pathological processes. 2. Fundamentals of clinical pathology: typical forms of the pathology of tissues, organs, and systems of organs
<p>3. Saltykov A.B., Khitrov A.N., Grachev S.V. et al. Pathology: Textbook. MIA, 2020. 304 p. https://medkniga.ru/knigi/37138#gallery (partial access).</p>	<ol style="list-style-type: none"> 1. Fundamentals of general pathology: typical pathological changes and processes. Basic patterns of development of pathological processes and conditions. Morphological changes in organs and tissues in pathological processes. 2. Fundamentals of clinical pathology: typical forms of the pathology of tissues, organs, and systems of organs

Sources in Russian	Topic
1. Ремизов И.В. Основы патологии: учебник. М.: КНОРУС, 2016. 240 с. https://jasulib.org.kg/wp-content/uploads/2023/01/8.-И.В.-Ремизов-В.А.-Дорошенко.-ОСНОВЫ-ПАТОЛОГИИ.pdf (free access).	1. Fundamentals of general pathology: typical pathological changes and processes. Basic patterns of development of pathological processes and conditions. Morphological changes in organs and tissues in pathological processes. 2. Fundamentals of clinical pathology: typical forms of the pathology of tissues, organs, and systems of organs
2. Патологическая анатомия: учебник: в 2 т. / под ред. В. С. Паукова. 3-е изд., перераб. Москва: ГЭОТАР-Медиа, 2022. Т. 1. Общая патология. 752 с. https://www.rosmedlib.ru/book/ISBN9785970470954.html?ysclid=lx4saltmub152171075 (partial access).	1. Fundamentals of general pathology: typical pathological changes and processes. Basic patterns of development of pathological processes and conditions. Morphological changes in organs and tissues in pathological processes. 2. Fundamentals of clinical pathology: typical forms of the pathology of tissues, organs, and systems of organs.
3. Патологическая анатомия: в 2 т. Т. 2. Частная патология: учебник / под ред. В. С. Паукова. 3-е изд., перераб. Москва: ГЭОТАР-Медиа/ 2022. 544 с. https://www.rosmedlib.ru/book/ISBN9785970470961.html?ysclid=lx4se2h5vm776011644 (partial access).	Fundamentals of clinical pathology: typical forms of the pathology of tissues, organs, and systems of organs

Pharmacology

Sources in English	Topic
1. Alyautdin, R. N. Pharmacology. Illustrated textbook / ed. R. N. Alyautdin. Moscow: GEOTAR-Media, 2020. 312 p. https://www.studentlibrary.ru/ru/book/ISBN9785970456651.html (partial access).	1. General pharmacology. 2. Drugs primarily impacting on the afferent part of the peripheral system. 3. Agents affecting efferent innervation. 4. Drugs influencing the central nervous system. 5. Drugs affecting the function of executive bodies and systems. 6. Drugs inhibiting inflammation and regulating immune processes. 7. Antimicrobial, antifungal, antiviral, antiparasitic, and antitumor agents.

<p>2. Janet Stringer. Basic Concepts in Pharmacology: What you Need to Know for Each Drug Class: 4th (fourth) Edition. McGraw-Hill Companies. 2011.254 p. http://repo.upertis.ac.id/1876/1/Basic%20Concepts%20In%20Pharmacology.pdf (free access).</p>	<ol style="list-style-type: none"> 1. General pharmacology. 2. Drugs primarily impacting on the afferent part of the peripheral system. 3. Agents affecting efferent innervation. 4. Drugs influencing the central nervous system. 5. Drugs affecting the function of executive bodies and systems. 6. Drugs inhibiting inflammation and regulating immune processes. 7. Antimicrobial, antifungal, antiviral, antiparasitic, and antitumor agents.
<p>3. Kharkevitch, D. A. Pharmacology: textbook / D. A. Kharkevitch. - Translation of Russian textbook, 12th edition, revised and improved. - Moscow : GEOTAR-Media, 2023. - 2nd edition. 680 p. https://www.rosmedlib.ru/book/ISBN9785970470886.html (partial access).</p>	<ol style="list-style-type: none"> 1. General pharmacology. 2. Drugs primarily impacting on the afferent part of the peripheral system. 3. Agents affecting efferent innervation. 4. Drugs influencing the central nervous system. 5. Drugs affecting the function of executive bodies and systems. 6. Drugs inhibiting inflammation and regulating immune processes. 7. Antimicrobial, antifungal, antiviral, antiparasitic, and antitumor agents.

Sources in Russian	Topic
<p>1. Аляутдин Р.Н., Преферанский Н.Г., Преферанская Н.Г. Фармакология. М.: ГЭОТАРМедиа, 2020. 441 с. http://mkmeridian.kz/f/alyautdin_2020_farma.pdf (free access).</p>	<ol style="list-style-type: none"> 1. General pharmacology. 2. Drugs primarily impacting on the afferent part of the peripheral system. 3. Agents affecting efferent innervation. 4. Drugs influencing the central nervous system. 5. Drugs affecting the function of executive bodies and systems. 6. Drugs inhibiting inflammation and regulating immune processes. 7. Antimicrobial, antifungal, antiviral, antiparasitic, and antitumor agents.
<p>2. Основы фармакологии [Электронный ресурс]: учебник / Д.А. Харкевич. - 2-е изд., испр. и доп. М.: ГЭОТАР-Медиа, 2015. https://e-library.sammu.uz/uploads/books/Rus%20tilidagi%20adabiyotlar/%D0%A4%D0%B0%D1%8</p>	<ol style="list-style-type: none"> 1. General pharmacology. 2. Drugs primarily impacting on the afferent part of the peripheral system. 3. Agents affecting efferent innervation. 4. Drugs influencing the central nervous system.

<p>0%D0%BC%D0%B0%D0%BA%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D1%8F/%D0%9E%D1%81%D0%BD%D0%BE%D0%B2%D1%8B_%D1%84%D0%B0%D1%80%D0%BC%D0%B0%D0%BA%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%D0%94_%D0%90_%D0%A5%D0%B0%D1%80%D0%BA%D0%B5%D0%B2%D0%B8%D1%87_2015.pdf (free access).</p>	<ol style="list-style-type: none"> 5. Drugs affecting the function of executive bodies and systems. 6. Drugs inhibiting inflammation and regulating immune processes. 7. Antimicrobial, antifungal, antiviral, antiparasitic, and antitumor agents.
<p>3. Фармакология: учебник / под ред. А. А. Свистунова, В. В. Тарасова. — 4-е изд., электрон. — М.: Лаборатория знаний. 2021. 771 с. https://profmedsestra.ru/f/farmakologiya.pdf (free access).</p>	<ol style="list-style-type: none"> 1. General pharmacology. 2. Drugs primarily impacting on the afferent part of the peripheral system. 3. Agents affecting efferent innervation. 4. Drugs influencing the central nervous system. 5. Drugs affecting the function of executive bodies and systems. 6. Drugs inhibiting inflammation and regulating immune processes. 7. Antimicrobial, antifungal, antiviral, antiparasitic, and antitumor agents.

General Medicine and Medical Care

Название источника на английском языке	Соответствующая тема
<p>1. Goldman L., Schafer A. Goldman-Cecil Medicine, 2-Volume Set. 26th Edition. Elsevier, 2019. 2944 p. https://www.elsevier.com/books/goldman-cecil-medicine-2-volume-set/goldman/978-0-323-53266-2 (partial access).</p>	<ol style="list-style-type: none"> 1. Arterial hypertension. Classification. Clinical features. Diagnostics. Treatment. 2. Type 2 diabetes mellitus. Clinical manifestations, diagnostics. Groups of oral hypoglycemic drugs. Features of application. 3. Anemia. Differential diagnosis. 4. Pneumonia. Classification. Clinical manifestations. Diagnostics. Treatment. 5. Chronic obstructive pulmonary disease. Etiology. Clinical manifestations. Diagnostics. Treatment. 6. Inflammatory bowel diseases. Classification. Clinical manifestations. Diagnostics. Treatment. 7. Chronic hepatitis. Classification. Etiology. Diagnostics. Treatment. Complications. 8. Liver cirrhosis. Etiology. Classification. Clinical manifestations.

	<p>Diagnostics. Principles of treatment. Complications.</p> <p>9. Chronic kidney disease. Stages. Clinical manifestations. Diagnostics. Treatment.</p>
<p>2. Hui D., Leung A. A., Ma C. Approach to Internal Medicine A Resource Book for Clinical Practice Springer Cham, 2022. 540 p. https://link.springer.com/book/10.1007/978-3-030-72980-6#about-book-content (partial access).</p>	<p>1. Arterial hypertension. Classification. Clinical features. Diagnostics. Treatment.</p> <p>2. Coronary heart disease. Etiology. Pathogenesis. Risk factors. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>3. Type 2 diabetes mellitus. Clinical manifestations, diagnostics. Groups of oral hypoglycemic drugs. Features of application.</p> <p>4. Anemia. Differential diagnosis.</p> <p>5. Pneumonia. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>6. Chronic obstructive pulmonary disease. Etiology. Clinical manifestations. Diagnostics. Treatment.</p> <p>7. Acid-related diseases of the gastrointestinal tract. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>8. Inflammatory bowel diseases. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>9. Chronic hepatitis. Classification. Etiology. Diagnostics. Treatment. Complications.</p> <p>10. Liver cirrhosis. Etiology. Classification. Clinical manifestations. Diagnostics. Principles of treatment. Complications.</p> <p>11. Chronic kidney disease. Stages. Clinical manifestations. Diagnostics. Treatment.</p>
<p>3. Jarrah A. Al-T. Internal Medicine An Illustrated Radiological Guide Second Edition. Springer International Publishing Switzerland, 2017, 597 p. https://link.springer.com/content/pdf/10.1007/978-3-319-39747-4.pdf (partial access).</p>	<p>1. Arterial hypertension. Classification. Clinical features. Diagnostics. Treatment.</p> <p>2. Coronary heart disease. Etiology. Pathogenesis. Risk factors. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>3. Type 2 diabetes mellitus. Clinical manifestations, diagnostics. Groups of oral hypoglycemic drugs. Features of application.</p> <p>4. Anemia. Differential diagnosis.</p> <p>5. Pneumonia. Classification. Clinical manifestations. Diagnostics. Treatment.</p>

	<p>6. Chronic obstructive pulmonary disease. Etiology. Clinical manifestations. Diagnostics. Treatment.</p> <p>7. Acid-related diseases of the gastrointestinal tract. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>8. Inflammatory bowel diseases. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>9. Liver cirrhosis. Etiology. Classification. Clinical manifestations. Diagnostics. Principles of treatment. Complications.</p> <p>10. Chronic kidney disease. Stages. Clinical manifestations. Diagnostics. Treatment.</p>
<p>4. Kasper D., Fauci A., Hauser S, Longo D., Jameson J., Loscalzo J. Harrison's Principles of Internal Medicine. 19th ed. New York: McGraw Hill Education, 2016. 3984 p. https://archive.org/details/DennisL.KasperAnthonyS.FauciStephenHauserDanLongoJ.LarryJamesonJosephLoscalzoHar (free access).</p>	<p>1. Arterial hypertension. Classification. Clinical features. Diagnostics. Treatment.</p> <p>2. Coronary heart disease. Etiology. Pathogenesis. Risk factors. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>3. Type 2 diabetes mellitus. Clinical manifestations, diagnostics. Groups of oral hypoglycemic drugs. Features of application.</p> <p>4. Anemia. Differential diagnosis.</p> <p>5. Pneumonia. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>6. Chronic obstructive pulmonary disease. Etiology. Clinical manifestations. Diagnostics. Treatment.</p> <p>7. Acid-related diseases of the gastrointestinal tract. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>8. Inflammatory bowel diseases. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>9. Chronic hepatitis. Classification. Etiology. Diagnostics. Treatment. Complications.</p> <p>10. Liver cirrhosis. Etiology. Classification. Clinical manifestations. Diagnostics. Principles of treatment. Complications.</p>

	11. Chronic kidney disease. Stages. Clinical manifestations. Diagnostics. Treatment.
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Sources in Russian	Topic
<p>1. Ахмедов В.А. Диагноз при заболеваниях внутренних органов. Формулировка, классификации. / под. ред. В. А. Ахмедова. М.: ГЭОТАР-Медиа, 2016. 256 с. https://www.rosmedlib.ru/book/ISBN9785970438725.html (partial access).</p>	<p>1. Arterial hypertension. Classification. Clinical features. Diagnostics. Treatment.</p> <p>2. Coronary heart disease. Etiology. Pathogenesis. Risk factors. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>3. Type 2 diabetes mellitus. Clinical manifestations, diagnostics. Groups of oral hypoglycemic drugs. Features of application.</p> <p>4. Anemia. Differential diagnosis.</p> <p>5. Pneumonia. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>6. Chronic obstructive pulmonary disease. Etiology. Clinical manifestations. Diagnostics. Treatment.</p> <p>7. Acid-related diseases of the gastrointestinal tract. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>8. Inflammatory bowel diseases. Classification. Clinical manifestations. Diagnostics. Treatment.</p> <p>9. Chronic hepatitis. Classification. Etiology. Diagnostics. Treatment. Complications.</p> <p>10. Liver cirrhosis. Etiology. Classification. Clinical manifestations. Diagnostics. Principles of treatment. Complications.</p> <p>11. Chronic kidney disease. Stages. Clinical manifestations. Diagnostics. Treatment.</p>
<p>2. Дедов И.И. Эндокринология. Национальное руководство. Краткое издание / под ред. И. И. Дедова, Г. А. Мельниченко. - 2-е изд., перераб. и доп. Москва: ГЭОТАР-Медиа, 2020. 832 с. https://www.rosmedlib.ru/book/ISBN9785970455609.html (partial access).</p>	<p>Type 2 diabetes mellitus. Clinical manifestations, diagnostics. Groups of oral hypoglycemic drugs. Features of application.</p>

<p>3.Ивашкин В.Т. Гастроэнтерология. Национальное руководство / под ред. В. Т. Ивашкина, Т. Л. Лапиной – Москва: ГЭОТАР-Медиа, 2018. 464 с. https://www.rosmedlib.ru/book/ISBN9785970444061.html (partial access).</p>	<p>1. Acid-related diseases of the gastrointestinal tract. Classification. Clinical manifestations. Diagnostics. Treatment. 2. Inflammatory bowel diseases. Classification. Clinical manifestations. Diagnostics. Treatment. 3. Chronic hepatitis. Classification. Etiology. Diagnostics. Treatment. Complications. 4. Liver cirrhosis. Etiology. Classification. Clinical manifestations. Diagnostics. Principles of treatment. Complications.</p>
<p>4.Ройтберг Г.Е., Струтынский А.В. Внутренние болезни. Сердечно-сосудистая система. МЕДпресс, 2021. 904с. https://book-med.ru/products/19212749 (partial access).</p>	<p>1. Arterial hypertension. Classification. Clinical features. Diagnostics. Treatment. 2. Coronary heart disease. Etiology. Pathogenesis. Risk factors. Classification. Clinical manifestations. Diagnostics. Treatment.</p>
<p>5. Рукавицын, О. А. Гематология / под ред. Рукавицына О. А. Москва: ГЭОТАР-Медиа, 2024. 920 с. https://www.geotar.ru/lots/NF0027848.html (partial access).</p>	<p>Anemia. Differential diagnosis.</p>
<p>6. Сахин В. Т. Анемия хронических заболеваний / под общ. ред. Крюкова Е. В. – Москва: ГЭОТАР-Медиа, 2020. 160 с. https://www.studentlibrary.ru/book/ISBN9785970459232.html (partial access).</p>	<p>Anemia. Differential diagnosis.</p>
<p>7. Чучалин А. Г. Пульмонология / под ред. Чучалина А. Г. Москва: ГЭОТАР-Медиа, 2020. 768 с. https://www.rosmedlib.ru/book/ISBN9785970453230.html (partial access).</p>	<p>1. Pneumonia. Classification. Clinical manifestations. Diagnostics. Treatment. 2. Chronic obstructive pulmonary disease. Etiology. Clinical manifestations. Diagnostics. Treatment.</p>
<p>8.Шилов Е. М. Нефрология. Клинические рекомендации / под ред. Е. М. Шилова, А. В. Смирнова, Н. Л. Козловской. Москва: ГЭОТАР-Медиа, 2016. 816 с. https://www.rosmedlib.ru/book/ISBN9785970437148.html (partial access).</p>	<p>Chronic kidney disease. Stages. Clinical manifestations. Diagnostics. Treatment.</p>

Surgery

Sources in English	Topic
<p>1. Bland K.I., Sarr M.G., Büchler M.W., Csendes A., Garden O.J. General principles of Surgery: Handbooks in General Surgery.</p>	<p>1. Procedure for examining a patient with abdominal pain. Differential diagnosis of abdominal pain. Acute diseases of abdominal</p>

<p>Springer, 2011. 198 p. https://link.springer.com/book/9781849963800 (partial access).</p>	<p>cavity organs (appendicitis, cholecystitis, pancreatitis, complications of peptic ulcer disease, acute intestinal obstruction) and peritonitis. Diagnostic algorithm and treatment strategy in acute abdominal syndrome.</p> <p>2. Principles of surgical tissue repair. Surgical accesses and sutures. Vascular suture. Implantable medical items (stents, homo- and allografts, prostheses, implants). Methods for tissue fixation in surgery.</p>
<p>2. Brunickardi F. C., Andersen D. K., Billiar T.R., Dunn D.L., Kao L. S., Hunter J.G., Matthews J.B., Pollock R. E. Schwartz's Principles of Surgery, 11th edition. McGraw Hill, 2019. 2224 p. https://accessmedicine.mhmedical.com/book.aspx?bookID=2576#216202639 (partial access).</p>	<p>1. Procedure for examining a patient with abdominal pain. Differential diagnosis of abdominal pain. Acute diseases of abdominal cavity organs (appendicitis, cholecystitis, pancreatitis, complications of peptic ulcer disease, acute intestinal obstruction) and peritonitis. Diagnostic algorithm and treatment strategy in acute abdominal syndrome.</p> <p>2. Structure of the anterior abdominal wall. Hernias of the anterior abdominal wall. Classification. Principles of surgical treatment.</p> <p>3. Minimally invasive and robot-assisted operations in surgery. Organization of the operating room for video-endoscopic operations. Features of surgical access and manipulations in the performance of minimally invasive interventions. Laparoscopic cholecystectomy and appendectomy.</p> <p>4. Principles of surgical tissue repair. Surgical accesses and sutures. Vascular suture. Implantable medical items (stents, homo- and allografts, prostheses, implants). Methods for tissue fixation in surgery.</p>
<p>3. Evidence-Based Surgery. A Guide to Understanding and Interpreting the Surgical Literature. A. Thoma, S. Sprague, S.H. Voineskos, Ch.H. Goldsmith. Springer Cham. 2019. 360 p. https://doi.org/10.1007/978-3-030-05120-4 (partial access).</p>	<p>Perioperative medicine (asepsis and antisepsis, prevention and treatment of surgical infections, thromboembolic complications in surgical patients, fluid therapy and principles of nutritional support). Fundamentals of evidence-based medicine in surgery. Patient safety in surgery.</p>
<p>4. Gossage J., Modarai B., Sahai A., Worth R. 100 cases in surgery. 2nd edition. CRC Press, 2017. 241 p. https://umfmed.wordpress.com/wp-</p>	<p>Procedure for examining a patient with abdominal pain. Differential diagnosis of abdominal pain. Acute diseases of abdominal cavity organs (appendicitis, cholecystitis,</p>

content/uploads/2013/03/100-casesurgery.pdf (free access).	pancreatitis, complications of peptic ulcer disease, acute intestinal obstruction) and peritonitis. Diagnostic algorithm and treatment strategy in acute abdominal syndrome.
5. Kirk's Basic Surgical Techniques 8th edition by Fiona Myint. Paperback ISBN: 9780443113673 7 8 - 0 - 4 4 3 - 1 1 3 6 7 - 3eBook ISBN: 9780443114434 2024 Elsevier Limited https://shop.elsevier.com/books/kirks-basic-surgical-techniques/myint/978-0-443-11367-3 (partial access).	1. Minimally invasive and robot-assisted operations in surgery. Organization of the operating room for video-endoscopic operations. Features of surgical access and manipulations in the performance of minimally invasive interventions. Laparoscopic cholecystectomy and appendectomy. 2. Principles of surgical tissue repair. Surgical accesses and sutures. Vascular suture. Implantable medical items (stents, homo- and allografts, prostheses, implants). Methods for tissue fixation in surgery.

Sources in Russian	Topic
1. Госсадж Дж. А., Модарай Б., Сахай А., Уорт Р. 100 клинических разборов. Хирургия /Пер. с англ. под ред. А.Ф.Черноусова, Т.В.Хоробрых. М.: ГЭОТАР-Медиа, 2009. 282 с. https://knigogid.ru/books/97556-100-klinicheskikh-razborov-hirurgiya (partial access).	Procedure for examining a patient with abdominal pain. Differential diagnosis of abdominal pain. Acute diseases of abdominal cavity organs (appendicitis, cholecystitis, pancreatitis, complications of peptic ulcer disease, acute intestinal obstruction) and peritonitis. Diagnostic algorithm and treatment strategy in acute abdominal syndrome.
2. Затевахин И.И., Пасечник И.Н., Лядов К.В. Программа ускоренного выздоровления хирургических больных. Fast track. М.: ГЭОТАР-Медиа, 2019. 208 с. https://www.rosmedlib.ru/book/ISBN9785970443484.html (partial access).	Perioperative medicine (asepsis and antisepsis, prevention and treatment of surgical infections, thromboembolic complications in surgical patients, fluid therapy and principles of nutritional support). Fundamentals of evidence-based medicine in surgery. Patient safety in surgery.
3. Мьинт Ф. Основы хирургической техники по Кирку. – Перевод с англ. – М.: Издательство Панфилова, 2020. – 280 с.: илл. https://panphilovs.wixsite.com/website-1/kirk-basic-surgical (partial access).	1. Structure of the anterior abdominal wall. Hernias of the anterior abdominal wall. Classification. Principles of surgical treatment. 2. Minimally invasive and robot-assisted operations in surgery. Organization of the operating room for video-endoscopic operations. Features of surgical access and manipulations in the performance of minimally invasive interventions. Laparoscopic cholecystectomy and appendectomy.

	3. Principles of surgical tissue repair. Surgical accesses and sutures. Vascular suture. Implantable medical items (stents, homo- and allografts, prostheses, implants). Methods for tissue fixation in surgery.
4. Хирургия по Шварцу в 3-х томах. Под ред. Ф.Ч. Бруникарди; Пер. с англ.; Под ред. А.Ш. Ревишвили, Ю.В. Белова, В.И. Белоконева. ГЭОТАР-Медиа, 2023 г. 784 с. Серия · Доказательная медицина. https://www.geotar.ru/lots/NF0027617.html (partial access).	1. Procedure for examining a patient with abdominal pain. Differential diagnosis of abdominal pain. Acute diseases of abdominal cavity organs (appendicitis, cholecystitis, pancreatitis, complications of peptic ulcer disease, acute intestinal obstruction) and peritonitis. Diagnostic algorithm and treatment strategy in acute abdominal syndrome. 2. Structure of the anterior abdominal wall. Hernias of the anterior abdominal wall. Classification. Principles of surgical treatment. 3. Minimally invasive and robot-assisted operations in surgery. Organization of the operating room for video-endoscopic operations. Features of surgical access and manipulations in the performance of minimally invasive interventions. Laparoscopic cholecystectomy and appendectomy. 4. Principles of surgical tissue repair. Surgical accesses and sutures. Vascular suture. Implantable medical items (stents, homo- and allografts, prostheses, implants). Methods for tissue fixation in surgery. 5. Perioperative medicine (asepsis and antisepsis, prevention and treatment of surgical infections, thromboembolic complications in surgical patients, fluid therapy and principles of nutritional support). Fundamentals of evidence-based medicine in surgery. Patient safety in surgery.

Dentistry and Oral Surgery

Sources in English	Topic
1.Rajendran A., Sivapathasundharam B. Shafer's Textbook of Oral Pathology, 6/e 6th Edition. Elsevier, 2009 https://shop.elsevier.com/books/shafers-textbook-of-oral-pathology-6-e/unknown/978-81-312-1570-8 (partial access).	Therapeutic dentistry: classification, diagnosis, and treatment of hard tooth tissues diseases, pulpal and periapical pathology, periodontal and oral mucosa diseases.

2.Tarasenko S. V. Oral Surgery: textbook / ed. by S. V. Tarasenko. Moscow: GEOTAR-Media, 2023. - 640 p. https://www.geotar.ru/lots/NF0023765.html . (partial access).	Oral surgery: etiology, pathogenesis, pathological anatomy, clinical picture, diagnosis, treatment methods and routing of oral surgery patients
3.Therapeutic dentistry: textbook / O. O. Yanushevich, Yu. M. Maximovskiy, L. N. Maximovskaya, L. Yu. Orekhova. Moscow: GEOTAR-Media, 2021. 672 p. https://www.geotar.ru/lots/NF0018080.html?yclid=lx43onsg0928541255 (partial access).	Therapeutic dentistry: classification, diagnosis, and treatment of hard tooth tissues diseases, pulpal and periapical pathology, periodontal and oral mucosa diseases.

Sources in Russian	Topic
1. Болезни зубов и полости рта: учебник / И. М. Макеева, Т. С. Сохов, М. Я. Алимова [и др.]. Москва : ГЭОТАР- Медиа, 2020. 256 с. https://www.geotar.ru/lots/NF0016807.html (partial access).	Therapeutic dentistry: classification, diagnosis, and treatment of hard tooth tissues diseases, pulpal and periapical pathology, periodontal and oral mucosa diseases.
2. Боровский Е. В. Терапевтическая стоматология: Учебник для студентов медицинских вузов / Под ред. Е. В. Боровского. М.: ООО «Медицинское информационное агентство», 2011. 840 с. https://e-library.sammu.uz/uploads/books/O'zbek%20tilidagi%20adabiyotlar/Стоматология/Е_В_Боровский_Терапевтическая_стоматология_2011_829_с_.pdf (free access).	Therapeutic dentistry: classification, diagnosis, and treatment of hard tooth tissues diseases, pulpal and periapical pathology, periodontal and oral mucosa diseases.
3. Тарасенко, С. В. Хирургическая стоматология: учебник / под ред. С. В. Тарасенко. Москва: ГЭОТАР-Медиа, 2021. 672 с. https://www.geotar.ru/lots/NF0019821.html (partial access).	Oral surgery: etiology, pathogenesis, pathological anatomy, clinical picture, diagnosis, treatment methods and routing of oral surgery patients.

Infectious Diseases

Sources in English	Topic
1.Bonita, Ruth, Beaglehole, Robert, Kjellström, Tord and World Health Organization. (2006). Basic epidemiology, 2nd ed. World Health Organization. https://iris.who.int/handle/10665/43541 (free access)	1. Morbidity: concept, causes, manifestations. 2. Epidemic process: definition, manifestations, components. Basic epidemic process theories.

<p>2. David D. Celentano, Moyses Szklo (2019) <i>Gordis Epidemiology</i> https://books.google.ru/books/about/Gordis_Epidemiology.html?id=QrJ4ugEACAAJandredir_esc=y (partial access)</p>	<ol style="list-style-type: none"> 1. Morbidity: concept, causes, manifestations. 2. Classification of infectious diseases. 3. Epidemic process: definition, manifestations, components. Basic epidemic process theories. 4. Sources of infections: concept, types of sources, classification of diseases by source
<p>3. Dicker, Richard C. et al. (2006). <i>Principles of epidemiology in public health practice; an introduction to applied epidemiology and biostatistics</i>. 3rd ed. https://stacks.cdc.gov/view/cdc/6914 (free access)</p>	<ol style="list-style-type: none"> 1. Morbidity: concept, causes, manifestations. 2. Classification of infectious diseases. 3. Epidemic process: definition, manifestations, components. Basic epidemic process theories. 4. Sources of infections: concept, types of sources, classification of diseases by source
<p>4. Kenrad E. Nelson, Carolyn Masters Williams (2014) <i>Infectious Disease Epidemiology: Theory and Practice</i> https://books.google.ru/books/about/Infectious_Disease_Epidemiology.html?id=tzHwMgEACA (partial access)</p>	<ol style="list-style-type: none"> 1. Mechanisms and routes of transmission, transmission factors, and their interaction. 2. Susceptibility to infectious diseases, population and individual immunity. 3. Immunoprophylaxis of infectious diseases: history and fundamentals of the method, types of immunobiological drugs, vaccination schedules.
<p>5. Sharon E. Straus, Paul Glasziou, W. Scott Richardson, R. Brian Haynes. (2018) <i>Evidence-Based Medicine: How to Practice and Teach EBM</i>. https://books.google.ru/books/about/Evidence_Based_Medicine.html?id=BkRPDwAAQBAJandredir_esc=y (partial access)</p>	<ol style="list-style-type: none"> 1. Morbidity: concept, causes, manifestations. 2. Epidemic process: definition, manifestations, components. Basic epidemic process theories.

Sources in Russian	Topic
<p>1. Бражников, А. Ю. <i>Общая эпидемиология с основами доказательной медицины: руководство к практическим занятиям</i> / Бражников А. Ю., Брико Н.И., Кирьянова Е. В., Миндлина А. Я., Покровский В. И., Полибин Р. В., Торчинский Н. В., И. П. Палтышева. Москва: ГЭОТАР-Медиа, 2017. 496 с. https://www.rosmedlib.ru/book/ISBN9785970442555.html (partial access)</p>	<p>Epidemic process: definition, manifestations, components. Basic epidemic process theories.</p>
<p>2. <i>Эпидемиология: учебник: в 2 томах. Т. 1</i> / Н. И. Брико, Л. П. Зуева, В. И. Покровский [и др.]. Москва: ООО «Издательство</p>	<ol style="list-style-type: none"> 1. Morbidity: concept, causes, manifestations. 2. Classification of infectious diseases.

«Медицинское информационное агентство», 2013. 832 с. https://medkniga.ru/knigi/760 (partial access)	3. Epidemic process: definition, manifestations, components. Basic epidemic process theories.
3.Эпидемиология: учебник / под ред. Н. И. Брико. Москва: ГЭОТАР-Медиа, 2023. 656 с.: ил. https://www.studentlibrary.ru/book/ISBN9785970472279.html (partial access)	<ol style="list-style-type: none"> 1. Sources of infections: concept, types of sources, classification of diseases by source. 2. Mechanisms and routes of transmission, transmission factors, and their interaction. 3. Susceptibility to infectious diseases, population and individual immunity. 4. Immunoprophylaxis of infectious diseases: history and fundamentals of the method, types of immunobiological drugs, vaccination schedules.

Public Health

Sources in English	Topic
1. Begun D.N., Borshchuk E.L., Begun T.V. Course book for practical training in the sphere of public health and health care. Orenburg: OrSMU, 2018. 121 p. https://www.orgma.ru/files/kafedry/kafedra-obshzestvennogo-zdorovya-i-zdravoohraneniya-1/info_stud/new/FF2/Textbook.pdf (free access).	<ol style="list-style-type: none"> 1. Demography: subject matter, branches, rates, trends 2. Health research methods. Basics of statistics: organization of scientific research, types of statistical values, methods for evaluating the reliability of results and the relationships between values
2. Donev D., Pavlekovic G., Zaletel L. Health promotion and disease prevention. Hans Jacobs Publishing Company, 2007. 807 p. https://www.researchgate.net/profile/Doncho-Donev/publication/37683756_Concepts_and_Principles_in_Health_Promotion/links/0fcfd50981298aa4d8000000/Concepts-and-Principles-in-Health-Promotion.pdf (free access).	Prevention: types, goals, objectives, prevention effectiveness criteria
3. Gorbunov V. I., Vozzhennikova G. V., Isaeva I. N., Gorbunov M. V. cognitionealth and Healthcare: main ways of cognition: text book. Ulyanovsk: UISU, 2017. 182 p. https://www.ulsu.ru/media/uploads/iriskor%40mail.ru/2017/10/27/Public%20health.pdf (free access).	<ol style="list-style-type: none"> 1. Public health and its determinants 2. Demography: subject matter, branches, rates, trends 3. Disability: definition, causes, trends, approaches to rehabilitation
4. Mahajan B.K., Roy R. N., Saha I., Gupta M.C. Mahajan and Gupta Textbook of Preventive and Social Medicine. Jaypee Brothers Medical Publishers, 2013. 732 p.	<ol style="list-style-type: none"> 1. Risk factors, classifications, methods for risk factor assessment 2. Prevention: types, goals, objectives, prevention effectiveness criteria

https://www.ruseducation.in/books/Mahajan4th.pdf (free access).	
5.Outwater A.H., Leshabari S. C. International Encyclopedia of Public Health (Second Edition). 2017, pp. 338-349. https://www.researchgate.net/publication/310453018_Disease_Prevention_An_Overview (free access).	1. Prevention: types, goals, objectives, prevention effectiveness criteria 2. Prevention strategies: population strategy, high risk strategy, individual strategies
6.World Health Organization and World Bank. (2011). World report on disability 2011.350 p. https://apps.who.int/iris/handle/10665/44575 (free access).	Disability: definition, causes, trends, approaches to rehabilitation
7.World Health Organization. (2009). Global health risks: mortality and burden of disease attributable to selected major risks. World Health Organization. 70 p. https://apps.who.int/iris/handle/10665/44203 (free access).	Risk factors, classifications, methods for risk factor assessment

Sources in Russian	Topic
1. Глобальные факторы риска для здоровья. Смертность и бремя болезней, обусловленные некоторыми основными факторами риска. 70 с. https://apps.who.int/iris/bitstream/handle/10665/44203/9789244563878_rus.pdf (free access).	Risk factors, classifications, methods for risk factor assessment
2.Медик В. А., Лисицин В. И. Общественное здоровье и здравоохранение. 4-е изд., перераб. и доп. М.: ГЭОТАР-Медиа, 2017. 496 с. http://bono-esse.ru/blizzard/Biblio/OZZ/Uchebniki/Medik_OZZ_uchebnik_2017.pdf (free access).	1. Public health and its determinants 2. Demography: subject matter, branches, rates, trends 3. Disability: definition, causes, trends, approaches to rehabilitation
3. Решетников В.А. Общественное здоровье населения Российской Федерации: Учебник / Под ред. В.А.Решетникова. Москва: ООО «Издательство «Медицинское информационное агентство», 2022. 336 с. https://www.mmbook.ru/catalog/organizatsija-zdrav/110474-detail (partial access).	1. Public health and its determinants 2. Demography: subject matter, branches, rates, trends 3. Disability: definition, causes, trends, approaches to rehabilitation 4. Risk factors, classifications, methods for risk factor assessment 5. Prevention: types, goals, objectives, prevention effectiveness criteria

4. Решетников В.А. Организация медицинской помощи в Российской Федерации/ под ред. Решетникова В.А. М.: ООО «Издательство «Медицинское информационное агентство», 2018. 432 с. https://www.medlib.ru/library/library/books/21726 (partial access).	1.Risk factors, classifications, methods for risk factor assessment 2.Prevention: types, goals, objectives, prevention effectiveness criteria 3.Prevention strategies: population strategy, high risk strategy, individual strategies
5. Решетников В.А. Основы статистического анализа в медицине/ под ред. Решетникова В.А. М.: ООО «Издательство «Медицинское информационное агентство», 2019. 176 с. https://www.mmbook.ru/catalog/organizatsija-zdrav/109686-detail (partial access).	Health research methods. Basics of statistics: organization of scientific research, types of statistical values, methods for evaluating the reliability of results and the relationships between values.

4.2. Recommended Online Courses Anatomy and Morphology

Online courses in English	Link	Summary
Anatomy and Physiology of the Human Body	https://alison.com/course/anatomy-and-physiology-of-the-human-body	This course covers the structure and functions of major human body systems, including cells, tissues, skin, metabolism, and circulatory, respiratory, digestive, nervous, sensory, urinary, muscular, and reproductive systems. It also addresses common disorders or diseases related to each system.
Easy Anatomy and Physiology (Platinum Edition)	https://www.classcentral.com/course/udemy-easy-anatomy-and-physiology-platinum-edition-41526	The course provides information about anatomical structures of the human body, understanding of anatomical terminology and the physiology of human body systems.
Introduction to anatomy. Selected topics	https://sechenov.online/course/introduction-to-anatomy	This course aims to teach students how to locate, identify, and display the facial nerve, including its origin from the brain and skull cavity, as well as its branches. Students will also learn to describe the nerve's anatomy, topography, and branching areas.
Understanding the Human Body: An Introduction to Anatomy and Physiology, 2nd Edition	https://www.classcentral.com/course/the-great-courses-plus-understanding-the-human-body-an-introduction-to-	This course presents an essential guide to understanding the anatomy and physiology of the main systems and organs of the human body.

	anatomy-and-physiology-2nd-edition-52995	
Online courses in Russian	Link	Summary
АНАТОМИЯ ВНУТРЕННИХ ОРГАНОВ (Anatomy of Internal Organs)	https://online.pnzu.ru/enrol/index.php?id=83	This course provides an understanding of the principles of the body's structural and functional unity, its interaction with changing environmental conditions, and the influence of environmental, genetic, and social factors on the development and structure of the human body.
Наш богатый внутренний мир: об анатомии просто и интересно (Our Rich Inner World: Anatomy Explained Simply and Engagingly)	https://stepik.org/course/194971/promo#toc	This course provides fundamental knowledge in human anatomy, covering the musculoskeletal system, central nervous system, cardiovascular system, respiratory system, genitourinary system, digestive system, endocrine system, and sensory organs.
Per aspera: анатомия для подготовки к ЕГЭ и олимпиадам (Per Aspera: Anatomy for Preparing for the Unified State Exam and Olympiads)	https://medclass.ssmu.ru/courses/91626/?ysclid=1z6u5tdzhh230532333	This course is devoted to the main sections of anatomy: Osteoarthrology, myology, neurology, angiology, splanchnology, endocrinology, esthesiology.

Physiology

Online courses in English	Link	Summary
Anatomy and Physiology of the Human Body	https://alison.com/course/anatomy-and-physiology-of-the-human-body	The course covers the structure and functions of the major systems of the human body, including cells and tissues, skin, metabolism, and the circulatory, respiratory, digestive, nervous, sensory, urinary, muscular, and reproductive systems. It also addresses

		common disorders and diseases associated with each system.
Easy Anatomy and Physiology (Platinum Edition)	https://www.classcentral.com/course/udemy-easy-anatomy-and-physiology-platinum-edition-41526	The course provides information about anatomical structures of the human body, offering an understanding of anatomical terminology and the physiology of human body systems.
Introductory Human Physiology	https://www.classcentral.com/course/humanphysio-380	The course helps master the key concepts of human physiology and homeostasis. It explores the physiology of the nervous, endocrine, cardiovascular, respiratory, and urinary systems, and also examines the roles of the sensory organs, muscles, gastrointestinal, and reproductive systems.
Understanding the Human Body: An Introduction to Anatomy and Physiology, 2nd Edition	https://www.classcentral.com/course/the-great-courses-plus-understanding-the-human-body-an-introduction-to-anatomy-and-physiology-2nd-edition-52995	This course presents an essential guide to understanding the anatomy and physiology of the main systems and organs of the human body.
Online courses in Russian	Link	Summary
Введение в физиологию (Introduction to Physiology)	https://openedu.ru/course/spbu/INTR OP/	The primary goal of this course is to provide foundational knowledge of the molecular and cellular processes underlying organ function and their regulation. This understanding enables the integration of individual organ functions into a single set of processes vital for human life.
Физиология высшей нервной деятельности (Physiology of Higher-Order Executive Functions)	https://stepik.org/course/105574/promo?search=4719178496	This course focuses on the physiology of higher-order executive functions, examining the mechanisms behind complex animal behavior and human brain functions. It covers methodologies for studying higher-order executive functions and explores both innate and acquired forms of behavior.
Физиология сердца и его дисфункции (Physiology of	https://openedu.ru/course/spbu/PHYH EART/?session=spring_2021	The purpose of the course is to provide an understanding of the heart's primary functions at the molecular, cellular, and organ levels. It aims to describe

the heart and its dysfunctions)		the mechanisms of regulation and identify the main dysfunctions of the heart.
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Pathology

Online courses in English	Link	Summary
Brain Biomarkers for Assessment of Brain Damage	https://sechenov.online/course/brain-biomarkers	The course provides an in-depth examination of innovative methodologies for the serological assessment of brain damage, focusing on various conditions, such as ischemic strokes, traumatic brain injuries (ranging from concussions to coma), and incomplete spinal cord injuries. Comprehensive research and clinical data are presented, highlighting the correlation between biomarker levels and clinical outcomes.
Cell Injury and Cell Death	https://sechenov.online/course/cell-injury-and-cell-death	This MOOC provides an overview of the factors causing cell injury, including chemical, physical, and intrinsic factors. It covers various cell adaptations (both physiological and pathological) that occur in response to these injuries, as well as different types of cell death that may occur if the cell cannot adapt. This includes programmed and non-programmed types of cell death such as apoptosis, autophagy, and necrosis, along with their numerous subtypes. The course discusses these subtypes in detail, focusing particularly on the molecular mechanisms of apoptosis and autophagy.
General Pathophysiology	https://openedu.ru/course/spbu/GENP ATHOPH/?session=spring_2023	This course covers the subject and methods of pathophysiology, including its role within biomedical sciences and its historical development. It addresses general nosology, which encompasses the concepts of health and disease, general etiology and pathogenesis, pathological processes and states, and the impact of causal factors, conditions, reactivity, and somatotype in pathology.
Pathology	https://www.classcentral.com/course/biology-tsinghua-university-pathology-bing-li-xue-19573	The course introduces the causes and development of many diseases, ranging from tissue inflammation and cancer to cardiovascular diseases, which are increasing annually. It covers topics from cellular damage and repair to diseases affecting human organs and systems.
Online courses in Russian	Link	Summary

Патология и патологическая анатомия: общие вопросы (Pathology and Pathological Anatomy: General Issues)	https://openedu.ru/course/spbu/GENPAT/?session=spring_2021	The course is aimed at developing knowledge in students about pathological anatomy, the general methodology of complex analysis of pathological processes, the nature of human diseases, inflammatory processes, disorders of tissue and cellular growth.
Общая патофизиология (часть 1) (General Pathophysiology: Part 1)	https://stepik.org/course/102981/promo	This course, devoted to the basics of pathophysiology, includes three modules: introduction into pathophysiology, general nosology, and general etiology.
Решение задач по патологии (Solving Problems in Pathology)	https://sechenov.online/course/resenie-zadac-po-obsej-patologii	The course introduces the basics of etiology and pathogenesis of typical pathological processes and typical forms of pathology. It includes fundamental concepts of pathology as a basic science, illustrated through case studies.
Типовые патологические процессы (Typical pathological processes)	https://openedu.ru/course/rudn/RUDN_22/	This course covers the definitions of basic concepts, classification, descriptions of etiology, and mechanisms of development and outcomes of typical pathological processes. It investigates cellular pathology, disorders of regional blood flow, inflammation, immunity, immunopathology, and allergies.

Pharmacology

Online courses in English	Link	Summary
Introduction to Pharmacology	https://www.edx.org/course/introduction-to-pharmacology?index=product&queryID=159059e498dd81d034d7dd8f79e1d165&position=10	This course explores the mechanisms of pharmaceutical drugs at the molecular level. It delves into various drug classes and deciphers how they affect systems within the human body. The course offers detailed knowledge in pharmacokinetics, drug toxicity, therapeutics, and drug discovery.
Introduction to Pharmacology	https://www.classcentral.com/classroom/youtube-	The course provides information on categorizing drugs, including their classes, names, and schedules. It covers methods of drug administration, pharmacokinetics, pharmacodynamics, and the main groups of drugs.

	pharmacology-80239	
Pharmacology of Antibacterial Agents	https://stepik.org/course/123136/promo	The main objective of the course is to provide systemic knowledge on pharmacokinetic and pharmacodynamic parameters of the main groups of antibacterial agents and offer an insight into their proper and safe use. It covers rational antibacterial use, pharmacodynamics, pharmacokinetics, indications, contraindications, adverse drug reactions of the main classes of natural antibiotic and synthetic agents, and parameters of their safety and use in specific populations of patients.
Online courses in Russian	Link	Summary
Основы клинического использования антибиотиков (Basics of Clinical Use of Antibiotics)	https://stepik.org/course/6699/promo?search=4718700801	The course examines modern principles of antibiotic use in clinical practice. Special attention is paid to the problem of antibacterial resistance and ways to overcome it.
Основы фармакологии (Fundamentals of Pharmacology)	https://stepik.org/course/174121/promo?search=4714797885	The course focuses on the pharmacology of the main groups of drugs.
Фармакология общая и частная (General and Particular Pharmacology)	https://stepik.org/course/185488/promo?search=4714797881	This course covers the issues of general pharmacology – the concepts of pharmacokinetics, enzyme kinetics, and pharmacodynamics, while also focusing on particular pharmacology, namely the characteristics of the main groups of drugs.

General Medicine and Medical Care

Online courses in English	Link	Summary
Basic symptomatology of pancreatic diseases	https://sechenov.online/course/pancreatic-diseases	This course reviews key aspects of the anatomy and physiology of the pancreas and the complex regulation of exocrine pancreatic secretion. It presents current opinions on the etiology, pathogenesis, and classification of both acute and chronic pancreatitis. Clinical manifestations and diagnostic evaluation of acute and chronic pancreatitis are discussed in detail.

Chronic Obstructive Pulmonary Disease (COPD)	https://www.ijhn-education.org/content/supplemental-course-chronic-obstructive-pulmonary-disease-copd-0#group-tabs-node-course-default1	The course provides evidence-based strategies for the assessment and management of COPD among older adults.
Chronic respiratory diseases (CRD) in primary care settings	https://www.my-mooc.com/en/mooc/chronic-respiratory-diseases-crd-in-primary-care-settings/	This course covers the diagnosis and management of respiratory care/primary care in resource-constrained countries.
Diabetes Mellitus and Ischemic Heart Disease— Important Issue in Modern Medicine	https://sechenov.online/course/diabetes-mellitus-and-ischemic-heart-disease-important-issue-in-modern-medicine	This MOOC is devoted to an urgent and important problem of modern medicine—a combination of ischemic heart disease and diabetes. The questions of epidemiology and pathogenetic mechanisms of the development of these diseases are considered. The course covers diagnostic criteria and clinical features of coronary heart disease in patients with diabetes are highlighted. Attention is paid to major risk factors for the occurrence and progression of coronary heart disease, as well as the development of complications of coronary heart disease and diabetes. The course also explores the main aspects of managing and treating patients with diabetes and coronary heart disease discussed.
Distance Course for Foreign Students: The Practice of Obtaining Primary Practical Skills, Including Primary Skills and Skills of Research Activities: Patient Care	https://edu.kpfu.ru/enrol/index.php?id=3666	This course offers fundamental knowledge in patient care and focuses on developing practical skills, including primary care skills and research techniques.

General Physical Examination of the Patient— Introduction to Internal Diseases	https://edu.kpfu.ru/enrol/index.php?id=6493	This course provides general knowledge in physical examination of the patient and offers an introduction to internal diseases.
Global Health Initiative: Chronic Obstructive Pulmonary Disease Awareness	https://alison.com/course/global-health-initiative-chronic-obstructive-pulmonary-disease-awareness-revised	This online course of the Global Health Initiative is devoted to Chronic Obstructive Pulmonary Disease (COPD). It covers the development, symptoms, types, and treatment of Chronic Obstructive Pulmonary Disease (COPD).
Introduction to Hematology	https://www.lecturio.com/medical-courses/introduction-hematology.course#/	This course introduces students to the medical field of hematology. It is divided into two parts: basic and advanced. The course covers topics such as blood and its formation, diseases of the blood system, and bleeding disorders therapy.
Nutrition, Heart Disease, and Diabetes	https://www.edx.org/course/nutrition-heart-disease-and-diabetes	This course highlights the importance of nutrition and lifestyle in the development and treatment of cardiovascular diseases and diabetes mellitus. It tracks current research progress on diabetes, cardiovascular disease, and other cardiometabolic disorders. It also explores how these cardiometabolic diseases can be prevented in individuals and populations through lifestyle and dietary modifications.
Online courses in Russian	Link	Summary
Анемии в практике врача-терапевта (Anemia as Encountered by the General Practitioner)	https://sechenov.online/course/anemii-v-praktike-vracha-terapevta	The course introduces the basic principles of diagnosing anemia. Modern diagnostic and therapeutic approaches to iron deficiency anemia, anemia caused by cobalamin and folate deficiency, and anemia of chronic diseases are discussed in detail. Diagnostic and therapeutic approaches to anemia occurring during pregnancy are discussed separately.
Артериальная гипертензия (Arterial Hypertension)	https://sechenov.online/course/arterialnaa-gipertenzia	This course covers the history of the study of arterial hypertension, explores the use of modern antihypertensive medications, and examines approaches to diagnosing and treating resistant arterial hypertension.
Пневмонии (Types of Pneumonia)	https://sechenov.online/course/pnevmonii	This course explores various types of pneumonia, including several nosological units. It covers current perspectives on diagnosing, treating, and managing patients with community-acquired pneumonia,

		nosocomial pneumonia, and ventilator-associated pneumonia.
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Surgery

Online courses in English	Link	Summary
Abdominal and Genitourinary Emergencies	https://www.lecturio.com/medical-courses/abdominal-and-genitourinary-emergencies.course#/	Intra-abdominal and pelvic pathology encompasses a greater diversity of conditions than that associated with any other organ system. Common causes include abdominal surgery, penetrating abdominal trauma, appendicitis, pancreatitis, diverticulitis, perforated viscus, biliary disease, and primary peritonitis. This course helps develop a systematic approach to identifying the cause of abdominal and/or genitourinary trauma and to develop a standardized approach to treatment.
Anatomy of the Abdominal Wall	https://learnsurgeryonline.com/course/anatomy-of-the-abdominal-wall-course/	This course covers the clinical anatomy of the abdominal wall, focusing on the anterolateral and posterior abdominal wall muscles, as well as abdominal incisions.
Basics of Surgery	https://sechenov.online/course/basic-of-surgery	The first part of the course explores the surgical anatomy of the abdomen, offering an understanding of human anatomy from a surgeon's perspective. The second part addresses acute abdominal syndrome, a major syndrome in general surgery, to develop clinical thinking. The third part examines mechanical jaundice as a specific case of surgical pathology, demonstrating the clinical application of the knowledge acquired in the previous sections.
Basic symptomatology of pancreatic diseases	https://sechenov.online/course/pancreatic-diseases	This course reviews the key aspects of pancreas anatomy and physiology, along with the complex regulation of exocrine pancreatic secretion. It covers current opinions on the etiology, pathogenesis, and classification of both acute and chronic pancreatitis. Clinical manifestations and diagnostic evaluation of acute and chronic pancreatitis are also discussed.
Online courses in Russian	Link	Summary
Заболевания печени (хирургия)	https://sechenov.online/course/zabolevaniya-pecheni-hirurgiya	This course is devoted to liver diseases that are challenging to diagnose at an early stage due to the absence of clinical manifestations. It covers cirrhotic transformation of the liver and portal hypertension in

(Liver Diseases: Surgery)		various diseases: acquired and congenital transformation of the bile ducts and vascular structures, metabolic disorders resulting from thrombus formation in the portal and hepatic veins. The pathogenesis of liver cirrhosis and portal hypertension, modern diagnostic methods and modern treatment methods are described. The course covers cystic liver formations, including parasitic and non-parasitic liver cysts, as well as liver abscesses. The issues of early diagnosis and prevention of parasitic formations of the liver are covered, alongside clinical experience in treating patients with liver diseases using minimally invasive surgery under ultrasound and X-ray television control.
Частные вопросы герниологии (Particular Issues of Herniology)	https://sechenov.online/course/herniology	This course introduces particular issues of herniology: various types of hernias of the anterior abdominal wall and diaphragm, as well as methods of their treatment, from classical to modern.
Шовный материал и узлы в хирургии (Suture Material and Knotting in Surgery)	https://stepik.org/course/95692/promo?search=4718505413	The course provides a range of didactic materials for learning the technique of surgical knotting and covers the theoretical foundations of suture materials.

Dentistry and Oral Surgery

Online courses in English	Link	Summary
Discover Dentistry	https://www.classcentral.com/course/discover-dentistry-1249	This course offers an understanding of tooth anatomy and development, explores various treatments and dental materials, and provides insights into the future of dentistry.
Free Learning in Functional Dentistry	https://ohi-s.com/webinars-courses/167549/	The focus of the course is on TMJ anatomy, diagnosis of TMJ disorders and orofacial pain, as well as differential diagnosis of orofacial pain.
Introduction to Dental Materials Science	https://stepik.org/course/54265/promo	The course focuses on mastering professional terminology, theoretical foundations, and practical skills related to impression materials, gypsum products, and dental ceramics.
Online courses in Russian	Link	Summary

<p>Гнойно-воспалительные заболевания челюстно-лицевой области: флегмоны, абсцессы, остеонекрозы (Purulent-inflammatory diseases of the maxillofacial region: phlegmons, abscesses, osteonecroses)</p>	<p>https://sechenov.online/course/flegmony-abscessy-osteonekrozy</p>	<p>The course provides fundamental information on the etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, and treatment principles for common purulent-inflammatory diseases of the maxillofacial region that require inpatient care.</p>
<p>Комплексный подход в рентгенологической диагностике зубочелюстных аномалий (Comprehensive Approach to Radiological Diagnosis of Dental and Maxillofacial Anomalies)</p>	<p>https://sechenov.online/course/kompleksnyj-podhod</p>	<p>This course aims to enhance dentists' skills in using X-ray examination methods for diagnosing and developing rehabilitation plans for orthodontic patients.</p>
<p>Морфология зубов (Dental Morphology)</p>	<p>https://online.pnzu.ru/enrol/index.php?id=92</p>	<p>The course aims to provide knowledge about the structure of the human dentofacial apparatus and its constituent organs and tissues. It incorporates recent advances in macro- and microscopic anatomy, physiology, and biology. The course also focuses on the structure of the human dentofacial system.</p>
<p>Стоматология (Dentistry)</p>	<p>https://online.pnzu.ru/enrol/index.php?id=81</p>	<p>The course develops an understanding of the tooth structure and the most common dental pathologies: caries, pulpitis, periodontitis, and non-carious tooth lesions.</p>

Infectious Diseases

Online courses in English	Link	Summary
Epidemics	https://www.coursera.org/learn/hkuepidemics	This course explores the history, impact, and management of epidemics, providing insights into the spread of diseases, public health strategies, and the societal implications of major outbreaks.
Epidemiology: The Basic Science of Public Health	https://www.coursera.org/learn/epidemiology#syllabus	This course allows students to delve into the fundamental principles of epidemiology and its crucial role in safeguarding public health. It explores key concepts, data analysis techniques, and real-world applications to reveal the science behind disease spread and prevention.
Infectious Disease Transmission Models for Decision-Makers	https://www.coursera.org/learn/infectious-disease-transmission-models-for-decision-makers	This course provides a comprehensive understanding of infectious disease transmission models and their practical implications for decision-makers. Students can explore the dynamics of disease spread, intervention strategies, and the use of models to inform effective public health policies.
Measuring Disease in Epidemiology	https://www.coursera.org/learn/measuring-disease-epidemiology	The course teaches how to calculate key epidemiological indicators, interpret data, and apply findings to public health practice.
Online courses in Russian	Link	Summary
Delta-V: курс по иммунопрофилактике (Delta-V: An Immunoprophylaxis Course)	https://stepik.org/course/126522/promo?search=4371774002	The purpose of this course is to enhance the awareness of medical professionals, particularly nursing staff, about immunoprophylaxis, with a focus on vaccination issues.
Научно-обоснованная медицинская практика. Поиск доказательной информации (Scientifically Based Medical Practice: Seeking Evidence-Based Information)	https://sechenov.online/course/dokazatelnoy-informacii	The course introduces the history and basic approaches of evidence-based medicine, examining its evolution from early attempts to standardize medical practice to modern methods of assessing and applying clinical research. In addition, the course covers clinical question formulation techniques, a fundamental skill for any healthcare professional. Students learn about the structure and significance of a correctly formulated question using the PICO (Patient-Intervention-Comparison-Outcome) format, explore classifications of evidence-based medicine databases, and form an understanding of the principles of using technology and evidence-based medicine in a doctor's practice.

Основные эпидемиологические инструменты для практики общественного здравоохранения (Basic Epidemiological Tools for Public Health Practice)	https://www.coursera.org/learn/epidemiology-tools	This online course covers key methods and tools for measuring disease spread, while describing how to calculate epidemiological indicators, analyze data, and apply results to public health practice.
Эпидемии - динамика инфекционных заболеваний (Epidemics— Dynamics of Infectious Diseases)	https://www.coursera.org/learn/epidemics	This online course offers an in-depth study of the dynamics of infectious diseases, including methods for analyzing epidemiological data and strategies for disease control. It covers the basic principles of epidemiology with a focus on practical skills to effectively respond to various epidemic situations.

Public Health

Online courses in English	Link	Summary
Basics of Health Promotion and Education Intervention	https://www.classcentral.com/course/swayam-basics-of-health-promotion-and-education-intervention-91645	This course provides a comprehensive understanding of health promotion and education interventions, which are key competencies for public health professionals. It covers how to define and assess the needs for these interventions, and focuses on practical skills for planning, implementing, and evaluating health promotion and education programs.
Elements of Biostatistics for Medical Students	https://sechenov.online/course/elements-of-biostatistics-for-medical-students	This course covers fundamental concepts in biostatistics, including population and sample definitions, calculations of the mean, variance, and standard deviation, as well as graphical presentations of distributions. The method of the least squares is explained along with its applications. The course also describes hypothesis testing for the mean, variance, and the significance of correlation dependencies. All topics are illustrated with examples, including mathematical calculations and explanations of the final results.
Foundations of Public Health	https://www.classcentral.com/course/	The three modules of the course explore the scope, principles, and nuances of health protection in the

Practice: Health Protection	health-protection-17355	context of public health practice. Beginning with the basics of Water, Sanitation, and Health (WASH) based interventions, the course introduces the science and principles of practical microbiology. It moves on to consider vaccines, incident management and the threat posed by a wide range of man-made and natural environmental threats.
Introduction to Research Methodology	https://sechenov.online/course/research-methodology	The course introduces the basics of research methodology, including types of research design, the research life cycle, and principles of data description. It covers the main statistical methods used in research and provides examples of how to interpret the results of statistical tests.
Public Health as a Key Resource for the Wellbeing of Society	https://sechenov.online/course/public-health	The course introduces fundamental definitions and key indicators crucial for understanding public health, such as demographic metrics, morbidity rates, and measures of disability. It explores methods for studying public health and analyzing health data. The training covers the identification and impact of major risk factors for noncommunicable diseases, including lifestyle choices, environmental factors, and genetic predispositions. Additionally, the course examines evidence-based approaches to disease prevention and health promotion strategies. It equips participants with the skills to design and implement effective public health interventions. Overall, the course provides a solid foundation in public health principles and practices for professionals in health policy, research, and community health.
Population Health: Disease Prevention and Management	https://www.my-mooc.com/ru/mooc/population-health-disease-prevention-and-management/	This course provides knowledge needed to identify key socio-economic and cultural determinants of population health outcomes, analyze the impact of socio-cultural factors on access to health care, and adjust health promotions and interventions accordingly.
Population Health: Fundamentals of Population Health Management	https://www.classcentral.com/course/fundamentals-population-health-management-13057	This course covers the fundamental principles of population health management, focusing on analyzing current healthcare challenges and designing solutions using this approach. It also explains the rationale behind the current transformation in healthcare value, exploring leading frameworks in population health management.
Online courses in Russian	Link	Summary

Демография (Demography)	https://sechenov.online/course/demografia	The course covers the fundamentals of demography as a science, providing a comprehensive understanding of its theoretical and practical aspects. It also examines the basic methods for studying demographic indicators, including statistical and analytical tools used to estimate population size, birth rate, mortality, migration and other key demographic processes. Special attention is paid to studying the characteristics and trends of demographic indicators in Russia and abroad.
Общественное здоровье и здравоохранение (Public Health and Healthcare)	https://sechenov.online/course/obsestvennoe-zdorove	The course covers essential concepts and principles of public health, including the organization of healthcare systems and factors affecting public health. It places special emphasis on public health indicators, risk factors, prevention of noncommunicable diseases, and statistical methods for public health research.
Сохранение здоровья и профилактика социально значимых заболеваний (Health Preservation and Prevention of Socially Significant Diseases)	https://sechenov.online/course/sohranenie-zdorovia	The course covers the fundamentals of a healthy lifestyle and contemporary methods for preventing socially significant diseases in Russia. It delves into organizing preventive work with the population, modern approaches to medical examinations for specific adult groups, and preventive medical screenings for adults. Additionally, the course addresses health assessment methods and principles for creating personalized recommendations for maintaining a healthy lifestyle. Further topics include health concepts, cancer and precancerous conditions, and cancer prevention.