

## The catalogue of elective disciplines

1. **Department:** «Surgery, Oncology and Traumatology»
2. **Level of training:** Residency
3. **Educational program:** «Traumatology-orthopedics, for adults and children»
4. **Course:** 3
5. **Name of elective discipline:** “Innovative technologies in traumatology and orthopedics”.
6. **Number of credits:** 4 credits / 120 hours.
7. **Purpose:** the acquisition of special knowledge necessary for the development of skills for the treatment of traumatological and orthopedic patients, the formation of diagnostic and traumatologic and orthopedic competencies.
8. **Tasks:**
  - The study of modern innovative methods of treating patients with trauma and orthopedic diseases;
  - **Content of disciplines:** The discipline studies modern methods of diagnosis and treatment, prevention of diseases of the organs of the musculoskeletal system. Early detection, timely implementation of adequate treatment of complications
  - **Justification of the choice of discipline:** In the context of the dynamic development and development of new technologies for the diagnosis and treatment of injuries and orthopedic diseases, it is necessary to qualitatively improve the knowledge and professional skills of an orthopedic trauma surgeon in this area. Given the above, the process of studying the discipline is aimed at forming elements of specific competencies that contribute to a significant improvement in both the professional activity of a specialist and the quality of medical care for the population in the treatment of injuries and orthopedic diseases.
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	<b>Knowledge (cognitive sphere)</b>	<b>Skills (psychomotor sphere)</b>	<b>Personal and professional competencies (relationships)</b>
	Knows modern methods of diagnostics and differential diagnosis of injuries and orthopedic diseases. Knows innovative conservative methods and the latest methods for surgical treatment of injuries	Able to assess the condition of the patient according to WHO recommendations. Able to scientifically analyze the socio-biological, medical and social conditions and factors of the occurrence of injuries and orthopedic diseases. Fluent in modern methods and techniques of surgical treatment of injuries and orthopedic diseases.	Based on the revealed data: medical history, examination, laboratory and instrumental methods of examination, the patient's condition, gives recommendations according to WHO, according to the clinical protocols of the Ministry of Health of the Republic of
	orthopedic diseases.	Able to establish contact with the patient / relatives for an effective treatment process, to involve the patient in the diagnosis and treatment process.	zakhstan. Based on the principles of evidence-based medicine, builds a strategy and tactics for the management of patients with trauma and orthopedic diseases.

**12. Prerequisites:** internship in "Surgery".

**13. Post requisites:** doctoral studies.

**14. Literature:**

**Primary:**

1. Traumatology and orthopedics : textbook Kazakh language. AUD. A. A. Koshanova; Ed. N. V. Kornilov-M.: GEOTAR-Media, 2018 . - 624 p.p.
2. Zhonkin B. Sh. Traumatology and orthopedics: textbook B. Sh. Zhonkin. - Almaty: Evero, 2016 . - 380 P. 3. Chernavsky V. A. Diagnostics, lecheniya perelomov and vyvikhov: учеб. posobie V. A. Chernavsky, U. A. Abdurazakov-Almaty: Evero, 2014. - 400 P.
4. diagnosis and treatment of orthopedic diseases: textbook U. Madikenuly; Ministry of health of the Republic of Kazakhstan; Karsmu - Almaty: Evero, 2012. - 231 P. S.
5. Traumatology and orthopedics: textbook / Kazakh language. AUD. A. A. Koshanova; Ed. N. V. Kornilov. - M. : GEOTAR-Media, 2018. - 624 P.

**Additional:**

1. Traumatology. National leadership. "I don't know," he said. G. P. Kotelnikova. - M.: GEOTAR-media, 2016. - 528 PP.
2. General Medical Practice: national guidelines. 2 volumes. Volume 2: manual translated into Kazakh. K. A. Alikhanova. - M.: GEOTAR-media, 2016. - 896 B. S.:
3. General medical practice in 2 vols. 2.: national guidelines ed. by I. N. Denisov. - M. : GEOTAR - Media, 2016. - 888 p.
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6. Konkaev A.K., Baimagambetov S.A. K 64 Anesthesiological provision of surgical interventions in gerontological patients with femoral fractures. – Methodological recommendations. 2nd edition – Almaty. Evero, - 2020. – 56 p.

**1. Department:** «Surgery, Oncology and Traumatology»

**2. Level of training: Residency.**

**3. Educational program:** «Traumatology-orthopedics, for adults and children»

**4. Course:** 3

**5. Name of elective discipline:** “Age features in traumatology and orthopedics”

**6. Number of credits:** 2 credits / 90 hours.

**7. Purpose:** to deepen the knowledge and clinical skills of providing specialized care in traumatology and orthopedics.

**8. Tasks:**

- advanced knowledge on traumatology and orthopedics;
- improving knowledge on modern principles of diagnosis and differential diagnosis in patients with pathology of the musculoskeletal system;
- independent implementation of qualified medical care for various conditions and diseases in traumatology and orthopedics, taking into account the peculiarities in childhood and old age.

**9. Content of disciplines:** The discipline studies modern methods of diagnosis and treatment, prevention of diseases of the organs of the musculoskeletal system. Early detection, timely implementation of adequate treatment of complications.

**10. Justification of the choice of discipline:** The problem of treating injuries and diseases of the musculoskeletal system continues to be relevant due to the high level of mortality and disability, the complexity of early diagnosis of pathology, the high frequency of complications and the limited ability to conduct adequate and complete treatment of patients with modern methods. Improvement of surgical treatment methods is aimed at reducing the hospital stay of patients due to the healing time and early rehabilitation.

## 11. Learning outcomes (competencies)

	Knowledge (cognitive sphere)	Skills (psychomotor sphere)	Personal and professional competencies (relationships)
	<ul style="list-style-type: none"> <li>Demonstrates knowledge of the object and objectives of the discipline</li> <li>Knows the</li> </ul>	<ul style="list-style-type: none"> <li>Able to assess the condition of the patient according to WHO recommendations.</li> <li>Able to scientifically analyze the socio-</li> </ul>	<ul style="list-style-type: none"> <li>Able to interpret data from laboratory and instrumental examination methods (clinical and biochemical analyzes, ultrasound, ECG, R-ages, MRI, etc.) current and in dynamics.</li> <li>Able to conduct clinical observations in the</li> <li>field of this discipline</li> </ul>
	<p>Principles of organizing trauma care in the Republic of Kazakhstan.</p> <p>Knows risk groups and the role of health education in reducing trauma pathology.</p> <p>Principles of injury prevention.</p> <p>Knows the diagnosis and prophylaxis of AIDS.</p> <p>Knows the ethical and social aspects of clinical traumatology and orthopedics.</p>	<p>biological, medical, social and epidemiological conditions and factors of the occurrence of injuries.</p> <p>Able to draw up the main forms of accounting and reporting documentation.</p> <p>Able to make diagnoses according to the classification ICD 10.</p> <p>Able to conduct measures to prevent injuries and orthopedic diseases.</p> <p>Able to interpret the results of various studies in traumatology and orthopedics.</p>	<p>Able to formulate their own conclusions in the form of recommendations on advanced methods of diagnosis, treatment, reduction of injuries and orthopedic diseases.</p> <p>Able to keep records and records using computer technology, database archiving</p> <p>Able to present personal judgments, draw up in the form of a review of literature, a report, abstracts of presentations, projects and present at practical classes, meetings of the scientific circle, scientific and practical conferences, etc.</p> <p>Able to master modern methods of diagnosis and treatment in traumatology and orthopedics.</p> <p>Able to conduct research and scientific development of data on injuries, risk factors, in order to prevent and reduce injuries.</p> <p>Able to conduct the correct informing and training of hospital patients on the simplest methods of injury prevention.</p>

**12. Prerequisites:** internship in the specialty "Surgery".

**13. Post requisites:** doctoral studies.

**14. Literature:**

**Primary:**

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1. **Department:** «Surgery, Oncology and Traumatology»
2. **Level of training:** Residency
3. **Educational program:** «Traumatology-orthopedics, for adults and children»
4. **Course:** 3
5. **Name of elective discipline:** “Inpatient replacement technologies in the diagnosis and treatment of trauma and orthopedic patients”.
6. **Number of credits:** 2 credits / 90 hours.
7. **Purpose:** the acquisition of special knowledge necessary for the development of skills for the treatment of traumatological and orthopedic patients, the formation of diagnostic and traumatologic and orthopedic competencies.
8. **Tasks:**
  - The study of modern hospital-replacement methods for treating patients with trauma and orthopedic diseases;
9. **Content of disciplines:** The discipline studies modern methods of diagnosis and treatment, prevention of diseases of the organs of the musculoskeletal system. Early detection, timely implementation of adequate treatment of complications.
10. **Justification of the choice of discipline:** In the context of the dynamic development and development of new technologies for the diagnosis and treatment of injuries and orthopedic diseases, it is necessary to qualitatively improve the knowledge and professional skills of an orthopedic trauma surgeon in this area. Given the above, the process of studying the discipline is aimed at forming elements of specific competencies that contribute to a significant improvement in both the professional activity of a specialist and the quality of medical care for the population in the treatment of injuries and orthopedic diseases.
11. **Learning outcomes (competencies).**

	<b>Knowledge (cognitive sphere)</b>	<b>Skills (psychomotor sphere)</b>	<b>Personal and professional competencies (relationships)</b>
	Knows modern methods of diagnostics and differential diagnosis of injuries and orthopedic diseases. Knows conservative methods and the latest	Able to assess the condition of the patient according to WHO recommendations. Able to scientifically analyze the socio-biological, medical and social conditions and factors of the occurrence of injuries and orthopedic diseases.	Based on the revealed data: medical history, examination, laboratory and instrumental methods of examination, the patient's condition, gives recommendations according to WHO, according to the

			clinical protocols of the Ministry of
	Methods for surgical treatment of injuries and orthopedic diseases.	Fluent in modern methods and techniques of surgical treatment of injuries and orthopedic diseases. Able to establish contact with the patient / relatives for an effective treatment process, to involve the patient in the diagnosis and treatment process.	Ministry of Health of the Republic of Kazakhstan. Based on the principles of evidence-based medicine, he builds a strategy and tactics for managing patients with trauma and orthopedic diseases.

**12. Prerequisites:** internship in "Surgery".

**13. Post requisites:** doctoral studies.

**14. Literature:**

**Primary:**

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**2. Level of training:** Residency

**3. Educational program:** «Traumatology-orthopedics, for adults and children»

**4. Course:** 3

**5. Name of elective discipline:** “Sports traumatology and orthopedics”.

**6. Number of credits:** 2 credits / 90 hours.

**7. Purpose:** To form knowledge, skills, and skills for providing emergency care in critical conditions in athletes and the prevention of various injuries and

pathologies.

**8. Tasks:**

- In-depth knowledge of emergency situations in acute sports injuries and diseases;
- increase knowledge on modern diagnostic methods and differential diagnosis of critical conditions in sports traumatology;
- deepening knowledge, preoperative preparation of patients with acute sports injury and pathology, assessing the initial condition of the patient, determining the risk of surgery, anesthesia and tactics of intensive care in the postoperative period.

**9. Content of disciplines:** The discipline studies modern methods of diagnosis and treatment, prevention of diseases of the organs of the musculoskeletal system. Early detection, timely implementation of adequate treatment of complications.

**10. Justification of the choice of discipline:** The frequency of sports injuries and diseases in athletes requiring emergency interventions does not tend to decrease. Severe complications as a result of diagnostic and tactical errors often result in an athlete's disability and inability to pursue a sports career. In this regard, it is very important to improve practical skills in providing emergency care and management tactics for patients with sports injuries and diseases.

**11. Learning outcomes (competencies)**

	<b>Knowledge (cognitive sphere)</b>	<b>Skills (psychomotor sphere)</b>	<b>Personal and professional competencies (relationships)</b>
	<ul style="list-style-type: none"> <li>• Fluent in the diagnosis and treatment of acute sports injuries and diseases.</li> <li>• Owns the terminology of injuries and illness, knowledge in the field of modern scientific</li> </ul>	<ul style="list-style-type: none"> <li>• Able to assess the condition of the patient according to WHO recommendations.</li> <li>• Able to scientifically analyze the socio-logical, medical and social conditions and</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates knowledge of the basics of healthcare legislation and regulatory legal acts regulating the activities of health authorities and individual medical organizations in the public of Kazakhstan;</li> <li>• Based on the revealed data: medical history, examination,</li> </ul>
	<ul style="list-style-type: none"> <li>• Achievements of sports medicine.</li> <li>• Knows the methods of patient involvement in the process of diagnostics and treatment, the formation of patient compliance, the basics of professional attitude to the patient, professional relations with colleagues and medical staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Factors in the occurrence of sports injuries and diseases.</li> <li>• Able to establish contact with the patient / relatives for an effective treatment process, to involve the patient in the process of diagnostics and treatment.</li> </ul>	<ul style="list-style-type: none"> <li>• Laboratory and instrumental methods of examination, the patient's condition, gives recommendations according to WHO, according to the protocols of the Ministry of Health of the Republic of Kazakhstan.</li> <li>• Based on the principles of evidence-based medicine, he builds a strategy and tactics for the management of athletes with injuries and diseases.</li> </ul>

**12. Prerequisites:** internship in the specialty "Surgery".

**13. Post requisites:** doctoral studies.

**14. Literature:**

**1. Primary:**

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