**AL-FARABI KAZAKH NATIONAL UNIVERSITY**

**Faculty of Medicine and Health Care**

**Higher School of Medicine**

**Department of Clinical Disciplines**

|  |  |
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|  | **Approved**  **Head of department**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Kalmatayeva Zh.А.**  **"\_\_\_\_\_\_"\_\_\_\_\_\_\_\_ 2021** |

**EDUCATIONAL-METHODICAL COMPLEX OF THE DISCIPLINE**

**PPS3209**

**Endocrinology and Metabolism**

**Training direction**

**6B101 Health Care**

**CURRICULUM**

**6B10103 General Medicine**

Year – 3

Semester – 6

Credits 5

**Almaty 2021**

Educational-Methodical Complex of the discipline was compiled by Professor Kurmanova G.M.

Based on the educational program **6B10103 - General medicine**

Considered and recommended at a meeting of the Department of Clinical Disciplines

 "\_\_\_" \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2021, protocol No. ...

Head of Chair \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ prof. Kurmanova G.M.

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### Recommended by Methodical committee of HSM

### «\_\_\_\_»  \_\_\_\_\_\_\_\_\_\_\_  20 21,  protocol  №

### Head of Methodical committee of HSM \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dzhumasheva R.T                                                                              (signature)

**Al Farabi Kazakh National University**

**Faculty of Medicine**

**Department of Clinical subjects**

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| --- | --- |
|  | Approved **Dean of Faculty**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Kalmatayeva Zh.А.**  **"\_\_\_\_\_\_"\_\_\_\_\_\_\_\_ 2021** |

**SYLLABUS**

**6 semesters 2020-2021 academic year**

**Academic information about course**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Hours per week | | | | | Number of credits |
| Code of discipline | Name of discipline | Type | ECTS |
|  | Practice | SIWT | SIW | |
| PPS3209 | Endocrinology and Metabolism | BD | - | 75 | 25 | 50 | | 5 |
|  |  |  |  |  |  |  | |  |
|  |  |  |  |  |  |  | |  |
| Course leader | Mira Turbekova | | 9.00- 14.00 | | | | According sсhedule | |
| e-mail | meerakz@mail.ru | |
| Phone | +77071917583 | |  | | | |  | |
| teacher | Karlygash Tazhibaeva | |  | | | |  | |
| e-mail | karla\_ag@mail.ru | |
| Phone | +77785704616 | |  | | | |  | |

|  |  |
| --- | --- |
| Academic presentation of course | During the study of course, students should be competent in:  The discipline includes the study of pathogenesis, pathology, clinical presentation of problems (clinical syndromes) and clinically oriented pharmacology of the endocrine system pathology. Training involves the development of clinical argumentation, analytical and problem-oriented thinking, a deep understanding of the problem in a clinical context; the formation and development of skills for the clinical diagnosis of pathology and the reasonable formation of a syndromic diagnosis  During the study of the discipline students will learn following aspects:  -Apply knowledge of the pathogenesis of endocrine pathology in the process of diagnosis and treatment, as well as in the process of maintaining homeostasis.  - To be able to conduct a focused questioning and physical examination of the patient, taking into account age-related features with endocrine pathology.  - Identify diagnostic and therapeutic interventions related to common diseases affecting the endocrine system.  - Interpret the basic data of laboratory and instrumental examination in endocrine pathology.  - Integrate knowledge to identify the main syndromes of lesions of the endocrine system: hyperglycemia, hypo-and hyperthyroidism, hypo-and hypercorticism.  - Describe the social, economic, ethnic and racial factors that play a role in the development, diagnosis and treatment of endocrine diseases.  - Know the classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications to the use of agents that affect endocrine function and are used in the treatment of diseases of the endocrine system.  - Demonstrate the ability to effectively conduct medical interviewing, taking into account the rules and norms of the doctor-patient relationship and knowledge of the basic principles of human behavior in different age periods, in normal conditions and with deviations in behavior, in different situations;  - Demonstrate communication skills in the process of learning and teamwork, skills in working with information resources |
| Prerequisite | General pathology |
| Postrequisite | Profile disciplines |
| Informational resources | 1. Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. 2. Harrison's Principles of Internal Medicine 20th Edition 2018. 3. Macleods Clinical Examination 13th.ed. Bates Guide to Physical Exaxmination and History Taking 14th Edition 2018 4. Skills for Communicating with Patients, Second Edition by Jonathan Silverman, Suzanne Kurtz, Juliet Draper Mechanisms\_of\_Clinical\_Signs\_Mark\_Dennis\_\_2ed 2016 5. Pharmacology 5th ed. - M. Clark, et. al., (Lippincott, 2012). 6. 100 CASES in Clinical Medicine. Second edition. 2007 P John Rees, James M Pattison and Gwyn Williams. 7. I. Provenzale, James M. II. Nelson, Rendon C. III. Duke University. Medical 8. Center. Dept. of Radiology. IV. Title: Radiology case review.   **Internet sources**   1. Medscape.com 2. Oxfordmedicine.com 3. [Uptodate.com](http://www.uptodate.com) 4. https://geekymedics.com/category/osce/clinical-examination/ |
| Academic policy of the course in the context of university values | **The rules of academic conduct:**  **1) Appearance:**   * office dress code * clean ironed white coat * medical mask * medical cap * medical gloves * second pair of shoes * spotless hair, neat nails * name badge   **2) necessary to have a phonendoscope, blood pressure monitor, measuring tape**  **3) Properly executed sanitary (medical) book.**  2)  Mandatory compliance with the rules of personal hygiene and safety  3) Systematic preparation for the educational process.  4) Accurate and timely record keeping.  5) Active participation in the medical-diagnostic and social activities of the departments.  Discipline:   * No late arrivals or morning conference. If late - the decision on admission to class is made by the teacher who leads the class. After the third delay, he writes an explanatory letter to the head of the department indicating the reasons for the delay and goes to the dean's office to obtain admission to the lesson. * Departure from class before the scheduled time, being outside the workplace during training time is regarded as absenteeism. * No additional work is allowed for students during school hours (during practical exercises and on duty). * For students with more than 3 passes without notifying the curator and a good reason, a report is issued with a recommendation for expulsion. * Missing classes are not practiced. * The rules for internal placement of KazNU and clinical bases fully apply to students.   **Academic values:**  Academic honesty and integrity: independence in the performance of all tasks; inadmissibility of plagiarism, forgery, use of cheat sheets, cheating at all stages of knowledge control, teacher deception and disrespect for him. |
| Evaluation and Assessment Policy | **Criteria evaluation:**  assessment of work on the activities of the check-list of the department  **Summative assessment: final control on the discipline of 2 stages:**  1. MCQ testing  2. Case studies |

**Calendar of the implementation of the course content:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| № | Topic title | | | | Number of hours | Maximum score |
|  | **18.01.2021-08.05.2021** | | | |  |  |
|  | Hypothalamic-pituitary regulation system | | | | 5,4 |  |
|  | Disorders of the pituitary | | | | 5,4 |  |
|  | Thyroid disorders: hyperthyroidism | | | | 5,4 |  |
|  | Thyroid disorders: hypothyroidism | | | | 5,4 |  |
|  | Mineral metabolism | | | | 5,4 |  |
| **15.02.2021-20.02.2021** | | ***Border control -1*** | | |  |  |
|  | Parathyroid disorders | | | | 5,4 |  |
|  | Hyperglycemic syndromes | | | | 5,4 |  |
|  | Metabolic syndrome | | | | 5,4 |  |
|  | Hypoglycemic syndromes | | | | 5,4 |  |
| **29.03.2021-03.04.2021** | | | | ***Midterm*** |  |  |
| 10. | Acute disorders related to severe hyperglycemia | | | | 5,4 |  |
| 11 | Diabetes Mellitus: complications | | | | 5,4 |  |
| 12 | Hypercorticism | | | | 5,4 |  |
| 13 | Hypocorticism | | | | 5,4 |  |
| 14 | Hyperaldosteronism and Pheochromocytoma | | | | 5,4 |  |
| **03.05.2021-08.05.2021** | | | ***Border control -2*** | |  |  |
|  | ***Final control 10.05.2021-22.05.2021*** | | | |  |  |
|  | 1. Stage - Testing | | | |  |  |
|  | 1. Stage - Case studies | | | |  |  |

Teacher\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Turbekova M., Tazhibaeva K.

Head of Department\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ professor  G.M. Kurmanova

Chairman methodical bureau of the HSM\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ R.T.Dzhumasheva **е**

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**Topic plan and content**

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| --- | --- | --- | --- |
| **№** | **Topic name** | **Content** | **What to read** |
|  | 2 | 3 | 4 |
| 1 | Hypothalamic-pituitary regulation system | Hormones: classification by structure, level and hierarchy of hormones, production, secretion, transportation and mechanism of action (endocrine, paracrine and autocrine action of hormones).  Hormone receptors. Functions of hormones. Regulation mechanisms: feedback mechanism, hierarchical system of hormonal regulation. Hormonal rhythms.  Clinical diagnostic methods for diseases of the endocrine system: complaints, anamnesis, examination of the body. Measurement of growth, its assessment. Examination for polyneuropathy of the lower extremities | * 1. Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 268-271.   2. Robbins Basic Patholog. Eighth edition. Philadelphia: Elsevier, 2007.-P.752-753.   3. Harrison's Principles of Internal Medicine 20th Edition 2018. ENDOCRINOLOGY AND METABOLISM P. 2653-2659 | |
| 2 | Disorders of the pituitary | Syndrome "Empty Turkish saddle". Short stature syndromes. Pituitary Nanism (dwarfism). Tall stature syndrome. Gigantism (epidemiology, etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment). Acromegaly (epidemiology, etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment). Surgery and radiation therapy for pituitary tumors.  Disorders of the neurohypophysis. Syndrome of inappropriate antidiuretic hormone secretion. Diabetes insipidus: etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment. Synthetic corticosteroids. Vasopressin. Desmopressin. | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 272-275.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2659-2674, P. 2677-2680, P. 2684-2692  3.Macleods Clinical Examination 13th.ed. Bates Guide to Physical Exaxmination and History Taking 14th Edition 2018.- P.200-201.  4.Pharmacology 5th ed. - M. Clark, et. al., (Lippincott, 2012).- P. 291-296. | |
| 3 | Thyroid disorders: hyperthyroidism | Physiology and assessment of thyroid function. Palpation of the thyroid gland: rules and technique. Thyroid imaging (ultrasound diagnostics, computed tomography, thyroid scintigraphy). The Iodine/Iodide loading test. Hyperthyroidism and Graves´ Disease (Basedow Disease). Reasons, pathomorphology, clinic, diagnostics, treatment. Thyrostatics. Thioamides, propylthiouracil.  Thyrotoxic crisis.| Symptoms and treatment. Betta blockers, calcium channel blockers, glucocorticoids, iodides.  Hyperthyroidism in Pregnancy | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 275-278, 280.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2692-2698  3. Macleods Clinical Examination 13th.ed. Bates Guide to Physical Exaxmination and History Taking 14th Edition 2018.- P.193-198  4.Pharmacology 5th ed. - M. Clark, et. al., (Lippincott, 2012).- P. 296-299.  5.https://geekymedics.com/thyroid-status-examination/ | |
| 4 | Thyroid disorders: hypothyroidism | Hypothyroidism: autoimmune thyroiditis, hasitoxicosis, Hashimoto, Riedel. Reasons, pathomorphology, clinic, diagnostics, treatment. Levothyroxine.  Hypothyroidism in Pregnancy  Colloid nodular goiter  Hypothyroid coma. | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 278-280.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2698-2710  3.Macleods Clinical Examination 13th.ed. Bates Guide to Physical Exaxmination and History Taking 14th Edition 2018.- P.193-198 | |
| 5 | Mineral metabolism | Mineral homeostasis (calcium metabolism, phosphorus metabolism, magnesium metabolism, vitamin D). Hypophosphatemia, hyperphosphatemia. Hypomagnesemia, hypermagnesemia. Vitamin D deficiency. Osteomalacia and rickets (causes, clinical picture, treatment). | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 281-283.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2909-2921  3.Macleods Clinical Examination 13th.ed. Bates Guide to Physical Exaxmination and History Taking 14th Edition 2018.- P.198-200 | |
| 6 | Parathyroid disorders | Parathyroid glands: histology. Physiology (biosynthesis, secretion and metabolism). Parathyroid hormone. Calcitonin. Hypercalcemia. Primary hyperparathyroidism (etiology, morphology). Diagnostics. Treatment. Hypocalcemia. Osteoporosis (assessment of osteoporosis, risk factors, treatment). | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 283-287.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2921-2942  3.Macleods\_Clinical\_Examination\_13th\_ed Bates\_Guide\_to\_Physical\_Exaxmination\_and\_History\_Taking\_12th\_Edition\_2018. P. 198-210 | |
| 7 | Hyperglycemic syndromes | Regulation of glucose homeostasis. Diabetes: definition, diagnosis and classification, epidemiology.  Hyperglycemia. Impaired glucose tolerance. Diabetes mellitus type 1 (etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment). Diet. Exogenous (injected) insulin.  Diabetes mellitus type 2 (etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment). Diet. Mode. Oral glucose-lowering agents (glinides, biguanides, thiazolidinediones, α-glucosidase inhibitors). Fast and short acting insulin preparations  Gestational diabetes. | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p.303-310.  Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2850-2875  3.Macleods Clinical Examination 13th.ed. Bates Guide to Physical Exaxmination and History Taking 14th Edition 2018.- P.205-209.  4.Pharmacology 5th ed. - M. Clark, et. al., (Lippincott, 2012).- P. 301-313.  5. <https://geekymedics.com/blood-glucose-measurement/> | |
| 8 | Metabolic syndrome | Metabolic syndrome. Etiology. Pathogenesis. Diagnostic criteria.  Risk factors (physical inactivity, diabetes mellitus, obesity, age, genetics, lipodystrophy, cardiovascular disease). Clinic. Associated diseases. Diagnostics. Treatment. | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p.313-314.  Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2903-2909. Chapter 396 | |
| 9 | Hypoglycemic syndromes | Systemic glucose balance and glucose counterregulation. Hypoglycemia: causes, pathophysiology, symptoms.  Hypoglycemia without diabetes. | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p.311-312.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2883-2888. Chapter 399 | |
| 10 | Acute disorders related to severe hyperglycemia | Diabetic emergencies. Diabetic ketoacidosis and ketoacidotic coma. Hypoglycemia and hypoglycemic coma.  Hyperosmolar hyperglycemic state. Lactic acidosis | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p.312.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. P. 2885-2873 | |
| 11 | Diabetes Mellitus: complications | Complications of diabetes mellitus (lower extremity complications, diabetic nephropathy, diabetic neuropathy, diabetic retinopathy). | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. –p.310-311.  2. Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2875-2883. Chapter 398  3.https://geekymedics.com/diabetic-foot-examination-osce-guide/ | |
| 12 | Hypercorticism | Anatomy and development of the adrenal glands. Control of steroidogenesis. Synthesis, metabolism and action of steroid hormone. Itsenko-Cushing's disease. Cushing's syndrome Hypercortisolism (epidemiology, etiology, pathogenesis, pathomorphology, clinical treatment, diagnosis). | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 287, p.289-290.  2. Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2719-2731  Chap. 373, 379  3.Macleods Clinical Examination 13th.ed. Bates Guide to Physical Exaxmination and History Taking 14th Edition 2018.- P.201-204  4.Pharmacology 5th ed. - M. Clark, et. al., (Lippincott, 2012).- P. 332-338. | |
| 13 | Hypocorticism | Adrenal insufficiency. Addison's disease: hypocorticism (epidemiology, etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment) | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 287-289.  2. Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2733-2738  3.Pharmacology 5th ed. - M. Clark, et. al., (Lippincott, 2012).- P. 332-338. | |
| 14 | Hyperaldosteronism and Pheochromocytoma | Conn’s syndrome: hyperaldosteroidism (epidemiology, etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment)  Pheochromocytoma (etiology, pathogenesis, pathomorphology, clinical picture, diagnosis, treatment). Malignant pheochromocytoma. Pheochromocytoma during pregnancy. | 1.Essentials of internal medicine / Nicholas J. Talley, Brad Frankum, David Currow. Talley, Nicholas Joseph. - 2015. - 3rd ed. – p. 290-294.  2.Harrison's Principles of Internal Medicine 20th Edition 2018. P. 2728-2730, P. 2739-2745 | |

**Assessment of Medical History recording (maximum 100 balls)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **№** | **Criteria** | **10** | **8** | **6** | **4** | **2** |
| ***Excellent*** | ***Good*** | ***Satisfactory*** | ***Need correction*** | ***bad*** |
| 1 | Patient’ complaints: main and secondary | Complete and systematized, with an understanding of important details | Accurate and complete | Main information | Incomplete or unaccurate, some details are missing | Missing of important |
| 2 | Anamnesis morbi  заболевания |
| 3 | Anamnesis vitea |
| 4 | Physical examination | Complete, efficiently, organized, with an understanding of the important details. | Consistent and correct | Main Data Identification | Incomplete or not quite right, not attentive to the comfort of the patient | Inconsistent data |
| 5 | Respiratory system | Full, effective, technically correct application of all the skills of examination, palpation, percussion and auscultation | Full, effective, technically correct application of all skills of examination, palpation, percussion and auscultation, physical examination with minor errors, or corrected during evaluation | Main Data Revealed  Physical examination skills learned | Incomplete or inaccurate  Physical examination skills need improvement | Important data missing  Inappropriate physical examination skills |
| 6 | Cardiovascular system |
| 7 | The gastrointestinal system |
| 8 | The renal system | Full, effective, technically correct application of all the skills of special examination |
| 9 | The musculoskeletal system | Full, effective, technically correct application of all the skills of special examination |
| 10 | Presentation of Medical history | The most complete description and presentation  Understanding the problem in a complex, connects with the characteristics of the patient | accurate, focused; choice of facts shows understanding | Record in form, includes all basic information | Many important omissions, often include false or unimportant facts. | Not possession of a situation, is a lot of important omissions a lot of the specifying questions |
|  |  |  |  |  |  |  |

**Assessment of Practical skills at bedside – curation (maximum 100 balls)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **Criteria** | **10** | **8** | **6** | **4** |
|  |  | ***Excellent*** | ***Good*** | ***Satisfactory*** | ***Need correction*** |
| **History taking** | | | | | | |
| 1. | Completeness and accuracy | Accurate, details the manifestations of the disease. Able to highlight the most important problem.  With attention to patient comfort | Gathers basic information, accurate, identifies new problems. | Incomplete or not focused. | Inaccurate,  Important data missing  inappropriate data. |  |
| 2. | Detail | Organized, focused, highlights all clinical manifestations with an understanding of the course of the disease in a particular situation. | Identifies the main symptoms | Incomplete data | Demonstrates false or absence |  |
| 3. | Systematic | Exact observance of the interrogation order, changes the order depending on the main problem and taking into account the characteristics of the patient | Unable to fully control history gathering process | Allows the patient to take himself aside, due to which time is lengthened. Uses leading questions (prompts the patient to answer, which may be incorrect) | Incorrectly asks questions or finishes gathering of anamnesis earlier, without revealing important problems. |  |
| 4 | Time management | As effective as possible in the shortest possible time | History taking time is delayed | Spends time inefficiently | Does not own the situation as a whole. |  |
| **Physical examination** | | | | | | |
| 5. | Consistency and correctness of the physical examination | Performs correctly in compliance with the sequence, confident, well-established execution technique | He knows the sequence, shows a reasonable skill in preparing and performing the examination | Inconsistent, uncertain, incomplete examination skills, refuses to try basic research | Does not know the order and sequence of the physical examination, does not know his technique  Incorrect  Dangerous for patient |  |
| 6. | The skill of special examination |  |
| 7. | Efficiency | Revealed all the basic physical data, as well as details | Identified the main symptoms | Incomplete data | Revealed data that does not match objective data |  |
| 8 | Ability to analyze identified data | Changes the order of examination depending on the identified symptoms, clarifies, details the manifestations. | It suggests a circle of diseases with similar changes without specifying and detailing the manifestations. | Cannot apply the obtained survey data and physical examination to the patient. | Not possession of a situation, is a lot of important omissions a lot of the specifying questions |  |
|  |  | **10** | **8** | **6** | **4** |  |
| 9-10 | Communication skills | He won the patient’s trust even in a situation with a communicative problem \* | Communication is quite effective. | difficulties in contact with the patient | Could not find contact with patient |  |

**Check list Student independing work (100 units)**

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

**Student’s independent work**

**15 hours**

1. Writing a medical history - 1 history

2. Practical skills training on your own (on volunteers)

3. Performing a creative assignment - 3 assignments or a big task individually

**Map of educational and methodological security discipline**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **Informational resources** | **Number of students studying the discipline (estimated enrollment)** | **Number in the library KazNU** | | |
| **kaz** | **rus** | **eng** |
|  | **Textbooks (title, year of publication, authors) in electronic version** | 15 |  |  |  |
|  | Harrison's Principles of Internal Medicine-19th Edition, 2015 |  |  |  |  |
|  | Macleods\_Clinical\_Examination\_13th\_ed |  |  |  |  |
|  | Bates\_Guide\_to\_Physical\_Exaxmination\_and\_History\_Taking\_12th\_Edition\_2016 |  |  |  |  |
|  | Skills for Communicating with Patients, Second Edition by [Jonathan Silverman](https://www.amazon.co.uk/Jonathan-Silverman/e/B004MK1KD0/ref=dp_byline_cont_book_1), [Suzanne Kurtz](https://www.amazon.co.uk/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Suzanne+Kurtz&text=Suzanne+Kurtz&sort=relevancerank&search-alias=books-uk), [Juliet Draper](https://www.amazon.co.uk/s/ref=dp_byline_sr_book_3?ie=UTF8&field-author=Juliet+Draper&text=Juliet+Draper&sort=relevancerank&search-alias=books-uk) |  |  |  |  |
|  | Mechanisms\_of\_Clinical\_Signs\_Mark\_Dennis\_\_2ed 2016 |  |  |  |  |
|  | Pharmacology 5th ed. - M. Clark, et. al., (Lippincott, 2012, ) |  |  |  |  |
|  | 100 CASES in Clinical Medicine. Second edition. 2007 P John Rees, James M Pattison and Gwyn Williams. |  |  |  |  |
|  | I. Provenzale, James M. II. Nelson, Rendon C. III. Duke University. Medical  Center. Dept. of Radiology. IV. Title: Radiology case review |  |  |  |  |
|  | **Internet resources** |  |  |  |  |
|  | Medscape.com  Oxfordmedicine.com  [Uptodate.com](http://www.uptodate.com)  ClinicalLearningbyELSEVIER  https://geekymedics.com/category/osce/clinical-examination/ |  |  |  |  |
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