**MINISTRY OF HEALTH (UKRAINE)**

**Kharkiv National Medical University**

**Department of Urology, Nephrology and Andrology n.a. prof. A. G. Podr****ez**

SYLLABUS

of academic discipline

**"Fundamentals of Andrology"**

(name of the academic discipline)

academic year 2020-2021

direction of training 22 "Healthcare" \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(cipher and name of the preparation direction)

specialty \_\_\_\_\_ 222 "Medicine"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(cipher and specialty name)

qualification\_\_\_\_\_\_\_\_\_\_\_\_\_ Master of Medicine \_\_\_\_\_\_\_\_\_\_\_\_\_

(name of specialization)

Institute, Faculty I, Faculty I, 3, and V Medical\_\_\_\_\_\_\_\_\_\_\_

 (name of institute, faculty)

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| The program of academic discipline was considered and approved at the meeting of the Department of Urology, Nephrology and Andrology n.a. Professor A.G. PodrezProtocol from. "\_27\_"\_\_August\_\_\_\_\_\_2020 year No 21Head of department \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_prof.\_V.M.Lisoviy \_\_\_ (signature) (surname and initials)"27"\_\_\_ \_\_\_august\_\_\_\_\_\_\_ 2020 year |  | Approved by the Methodical Commission of KhNMU on the problems of surgical professional training  Protocol from. "\_"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2020\_ yearNo\_Head \_\_\_\_\_\_\_\_\_\_\_\_ prof. Syplyviy V.O signature) (surname and initials)"\_\_\_\_\_"\_\_\_\_\_\_\_\_\_\_\_\_\_ 2020 year |
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**Fifth year**  **of study**

**Required items:**

Number of loans - 3

The total number of hours is 90.

Hours for full-time education: classroom - 20, independent work of the student - 70.

Year of preparation 5, semester 9 and 10.

Practical classes 20 hours.

Independent work 70

Type of scoring control.

Place of practical classes: study room of the Department of Urology, Nephrology and Andrology. Prof. A. G. Podreeza on the basis of the CNE CHOR "Regional Medical Clinical Center of Urology and Nephrology named after. V.I. Shapoval"

Time of classes: Monday, Tuesday, Wednesday, Thursday, Friday (according to the schedule);

**Course Coordinators**

1. Arkatov Andrey Valentinovich- responsible for the course of andrology of the Department of Urology, Nephrology and Andrology named after Professor A.G.Podrez, PhD, Associate Professor.
2. Knigavko Oleksandr Volodymyrovych – Professor of the Department of Urology, Nephrology and Andrology named after Professor A.G. Podrez, MD, Associate Professor.

**Data on teachers teaching discipline**

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| --- | --- | --- | --- | --- | --- |
| **Pip** | Contact phone. | E-mail: | Department address | Schedule of classes | Consultations |
| Andrei Arkatov | 067-71670-38 | kh.androlog@yahoo.com | Ave. Moscow 195, CNE CHOR "OCCCU them. V.I. Shapoval" | According to the schedule of classes | According to the consultation schedule |
| Alexander Knigavko | 097-085-26-42 | aknig@mail.ru | ---''--- | ---''--- | ---''--- |
| Nikolai Panasovsky | 050-184-15-20 | okcun@rambler.ru | ---''--- | ---''--- | ---''--- |

**Entry**

The **syllabus of**  **the discipline "Fundamentals** **of Andrology”** was compiled in accordance with the educational and scientific program, the field of knowledge 22 – "Health Care", specialty - 222 "Medicine" master's degree in the specialty 222 "Medicine".

**Description of the discipline (abstract).** Course on the basics of andrology is intended for students of the 5th year of medical faculties. During the course, practical classes are held covering a wide range of important medical problems. The basics of andrology include the study of laziness and anatomy, physiology of organs and disorders of the development of the male reproductive system, traumatical damage of the organs of the male reproductive system, Peronei’s disease, nonspecific and specific inflammatory diseases of the male reproductive system, erectile dysfunction, hypogonadism. Knowledge of andrology is based on experimental data and theoretical positions of medical and biological sciences, as well as on the actual material of clinical disciplines

The purpose of teaching the discipline "Fundamentals of Andrology" is to improve the quality of training of a modern doctor in the field of andrology, who has therapeutic, surgical knowledge and practical skills aimed at the prevention, treatment of andrological diseases and the reduction of infertile couples.

The main tasks of studying the discipline "Fundamentals of Andrology"is the acquisition by students of competencies in accordance with the general and professionalcompetencies of the educational and professional program "Medicine" of the second (master) level of higher education in the specialty 222 Medicine qualification Master of Medicine: possession of survey skills, determination of the principles and nature of treatment and prevention of complications of diseases of the male reproductivesystem, determinationof tactics for the provision of emergency medicalcare, the definition of tactics for conductinga patient in comorbid pathology, maintaining medical documentation, the ability to apply knowledge in practical situations, understanding the subject area and professional activity, the ability to adapt and act in a new situation, making a informed decision, the ability to work in a team, act socially responsible and consciously.

Academic discipline belongs to selective disciplines.

The format of the discipline is mixed.

**Teaching methods:** methodological recommendations for students, presentations, video materials, for distance learning: presentations on the topics of classes (for teaching in the Moodle and Zoom system), video materials, test tasks.

**Recommended literature**

**Basic literature**

1. Lisovy V.M., Arkatov A.V., Knigavko O.V. Clinical Andrology: textbook. – Kharkiv: KhNMU, 2012. – 308p.
2. Vozianov O.F., Lyulko O.V. Urology. - K.: High School, 1993. - 711 p.
3. Sexology and andrology / Boyko N.I., Borisenko Y.A., Bystrov A.A. and dr. -K.: Aris, 1997. -880 p.
4. Clinical sexology and andrology / By ed. O.F. Vozianova, I.I. Horpinchenko. - K.: Health, 1996. - 536 p.
5. NishlagA M.G., Bere A.N. Andrology – M.: "MYA", 2005
6. Lisovy V.M., Arkatov A.V., Knigavko O.V Male infertility: etiopathogenesis, diagnosis, treatment. H.: KhNMU. – 2011. - 128 p.
7. Contact infection, transmitted by catching putom / Pod ed. I.I.Mavrov. - K.: Health, 2000. - 420 p.
8. Lyulko A., Mynkov N., Tsvetkov D., Fundamentals of chiurgic andrology. - K.: Health, 1993. - 328 p.

**Information resources**

1. http://uroweb. org/ – website of the European Association of Urologists
2. [http://repo.](http://repo.knmu.edu.ua/) [knmu.](http://repo.knmu.edu.ua/) [edu.](http://repo.knmu.edu.ua/) [ua/](http://repo.knmu.edu.ua/) – repository of KhNMU
3. http://[andrologia.](http://www.onco.uroweb.ru/%22%20%5Ct%20%22_blank) [com.](http://www.onco.uroweb.ru/%22%20%5Ct%20%22_blank) [ua –](http://www.onco.uroweb.ru/%22%20%5Ct%20%22_blank) site of the clinic of andrology on the clinical basis of the department
4. https://www.ncbi.nlm.nih.gov is the site of theN.C.A.A.and the U.S. Center for Biotechnology Information.

*Prerequisites.* The study of discipline involves preliminary assimilation of credits in normal anatomy, normal physiology, pathological physiology, biophysics, biochemistry, clinical biochemistry, microbiology, virology and immunology, infectious diseases, pharmacology, surgery, urology, reanimatology, principles of evidence-based medicine.

*Post-requisites*: together with the discipline emergency medical care, infections diseases, clinical immunology, surgery should be studied.

**Results of training,** the formation of which is facilitated by discipline (relationship with the normative content of training of higher education applicants, formulated in the terms of the results of training in the Standard).

In accordance with the requirements of the standard, discipline ensures the acquisition of students

***competencies*:**

integral: ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of healthcare; Integrate knowledge and solve complex issues, formulate judgments with insufficient or limited information; clearly and unambiguously communicate their conclusions and knowledge, reasonablysubstantiating them, to a professional audience;

general competencies: ability to act socially responsibly and civilly consciously; abilityto apply knowledge in practical situations; ability to abstract thinking, analysis and synthesis; from dated to adaptation and action in a newsituation; ability to make informed decisions; skills of using information and communication technologies.

special (professional) competencies: ability to establish a preliminary and clinical diagnosis of the disease, with adate to determine the principles and nature of treatmentof diseases, the ability to maintain medical documentation.

**Program learning outcomes:** ability to apply acquired knowledge, skills and understanding to solve typical tasks of a doctor's activity, the scope of which is provided for lists of syndromes and symptoms, diseases, emergency conditions, laboratory and instrumental studies, medical manipulations; collection of information about the patient; evaluation of survey results, physical examination, laboratory and instrumental studies data; establishment of a preliminary clinical diagnosis of the disease; determination of the nature, principles of treatment of diseases; diagnosis of emergency conditions, determination of tactics for the provision of emergency medical care; the development of a specialist with proper personal qualities.

**Organization of training – educational and thematic plan**

|  |  |  |
| --- | --- | --- |
| No theme | Theme | Number of academies. hours |
| 1. | Clinical anatomy, physiology of organs and developmental failures of the male reproductive system.  | 4,0 |
| 2. | Traumatic injuries to the organs of the male reproductive system. | 3,0 |
| 3. | Nonspecific and specific inflammatory diseases of the organs of the male reproductive system. | 3,0 |
| 4. | Erectile dysfunction. Ejaculatory disorders. | 3,0 |
| 5. | Male infertility. | 4,0 |
| 6. | Male hypogonadism. | 3,0 |
|  | **Together** | **20** |

**Independent work**

|  |  |  |
| --- | --- | --- |
| #S/p | Subject Title | NumberHours |
| 1. | Preparation for practical classes -theoretical training and processing of practical skills | 20 |
| 2. | Topics for self-study: |  |
|  | Hermaphroditism. Principles of sex reassignment. | 10 |
|  | Tumors of the genital organs. | 10 |
|  | Age-related androgenic deficit | 10 |
|  | Effects of drugs on erectile function. | 5 |
|  | Modern endoscopic methods of diagnosis and treatment of diseases of the male genital organs | 5 |
|  | Individual SRS | 5 |
| 3. | Preparation for the final control of the assimilation ofthe module - clinical andrology | 5 |
| Only hours of student independent work | 70 |

**LIST OF QUESTIONS TO THE TEST**

1. Anatomical structure of the feces, penis, diuretic, prostate, testicles, testicular appendage.
2. Prostate gland, semenal vesicles. Method of rectal finger examination. BPH and prostate cancer. Changes in the prostate gland when it is inflamed. Diagnostic value of prostate secret analysis.
3. Penis. Diagnostic value of palpation data.
4. Frequency of abnormalities in the development of the urinary and male reproductive system. Modern classification of developmental anomalies. Varicocele. Hydrocele. Spermatocele. Cryptorchism. In smell-scrombone nod. Hypospadia.
5. Peyronie's disease. Etiopathogenesis. Diagnosis, conservative and surgical treatment.
6. Prostatitis: definition, classification, etiology, clinic. Diagnostics. Ways to break through prostate abscess.
7. Urethritis: etiology and pathogenesis, classification. Types of pathogens. Clinical course, diagnosis. Treatment of urethritis and their complications.
8. Vesiculitis. determination, classification, etiology, clinic. Ways to break through prostate abscess.
9. Orchiepidymitis: definition, etiology, pathogenesis. Clinical course, diagnosis and treatment.
10. Testicular abscess. Sedimentation of the scrounger. Principles of surgical treatment.
11. Male genital tuberculosis: etiology, pathogenesis, clinical course. Diagnosis and treatment methods.
12. Other specific diseases of the male reproductive system: 3homoniasis, chlamydia, ureaplasmosis, mycoplasmosis. Herpes simplex virus and human papillomavirus. Ich social and reproductive significance.
13. Erectile dysfunction. Social significance. Connection with other somatic diseases. causes, pathogenesis, classification, diagnosis, conservative and surgical treatment.
14. Priapism: causes, pathogenesis, classification, diagnosis, conservative and surgical treatment.
15. Ejaculatory disorders: premature ejaculation syndrome, retrograde ejaculation, anejaculator syndrome. Prevalence, causes, pathogenesis, classification, diagnosis, conservative and surgical treatment.
16. Barren marriage. Prevalence and structure of male infertility. causes, pathogenesis, classification, diagnosis, conservative and surgical treatment.
17. Secretory infertility. Etiopathogenesis. Diagnosis, treatment opportunities.
18. The importance of environmental factors in reproductive disorders and the possibility of their correction. Pathogenesis of excretory-toxic infertility. Correction capabilities.
19. Excretory-obturation infertility. Types of surgical and minimally invasive care.
20. Methods of male contraception. Their comparison and safety.
21. Family planning principles.

**Course Policy**

To achieve the goals of training and successfully pass the course, you must: from the first day to be included in the work; regularlyattend, do not be late and do not miss practical classes; regularly prepare the material in advance, for its consideration in a practical class; when attending practical classes, you must be dressed in a medical gown, matte and replaceable shoes and surgicaluniform, have a notebook, a pen with you; perform all the necessary homework and actively work in practical classes; if necessary, seek help and receive it when you need it.

Students can discuss various tasks, but their implementation is strictly individual. Write-offs, use of various kinds of software, hints, use of a mobile phone, tablet or other electronic gadgets during class are not allowed. Students are not allowed to be late for practical classes. Misses of practical classes are worked out an hour an hour for a group teacher or another teacher. Reception of works and consultations is carried out daily from 1500 – 1700,on Saturdays with dignity to the "Regulations on the procedure for students to work out trainingsessions" from 07.12.2015 No 415.

Students with special needs should meet with the teacher or warn him before the start of classes, at the request of the student, this can be done by the head of the group. If you have any questions, please contact the teacher.

**Control methods**

**Organization of current control**. The assimilation of the topic (current control) is controlled on the practical lesson in accordance with specific goals. or average assessment (with accuracy up to hundredths) per SND teacher automatically receives using the electronic journal of the ACU. The minimum number of points that a student must score for current activities during the study of the section is 120 points, the maximum number of points is 200 points. **The test**  is set for students who do not have academic debt and have at least 120 points (the average score for current academic activity is not less than 3.0).

**Evaluation of students' independent work.** Independent work of students, which is provided for by the topic of the lesson along with classroom work, is evaluated during the current control of the topic in the relevant class.

**Assessment of individual tasks of** the student is carried out under the conditions of the teacher's tasks (abstractreport at practical training, presentation atpractical classes, report at scientific and practical conferences of the department, university, writing abstracts, articles, participation in the All-Ukrainian Olympiad**)**.

Head of department

Urology, Nephrology and Andrology n.a. prof. A. G. Podrez

 M.D., Ph.D., Professor V.M. Lisoviy