

International Institute of Medical Education and Cooperation  
**SPECIALIST DEGREE PROGRAMME 31.05.01 'GENERAL MEDICINE'**  
**COURSE (MODULE) 'UROLOGY'**  
**OVERVIEW**

Mode of study	full time	
Faculty	International Institute of Medical Education and Cooperation	
Department	Urology	
Year	3, 4	
Semester –	6, 7 – Urology (180 ac.h.)	*ac. h. – academic hours
Lectures –	20 ac.h.	
Exam –	7 semester 4 ac.h	
Practical classes	98 ac.h	
Self-study	78 ac.h	
Total workload	180 ac.h (5 credits)	

The course (module) is devised according to FSES HE requirements approved on February,9, 2016 by Order of Ministry of Health, Russian Federation) and vocational functions of General Practitioner (primary care physician, district doctor) Professional Standard.

### **1. THE COURSE AIM AND SCOPE**

**The aim** - to teach students the ability to diagnose diseases of the urinary system, to determine the choice of their treatment and prevention.

**The course focuses on**

1. To give knowledge of etiology, pathogenesis, clinical picture, modern methods of diagnosis and treatment, as well as preventive measures of the most common diseases of the urinary system.
2. To give an idea of the deontological aspects of the management of patients with urological profile.
3. To form medical behavior and clinical thinking in urological diseases.
4. To form an algorithm of medical activity to provide medical care for urgent and life-threatening urological diseases.
5. To form the algorithm of medical activity for the prevention of urological diseases, as well as the algorithm of rehabilitation of patients with the consequences of urological diseases.

### **2. THE COURSE POSITION IN SPECIALIST DEGREE PROGRAMME 31.05.01 'GENERAL MEDICINE'**

The discipline "Urology" belongs to the block B1 of the basic part of the educational program of higher education in the direction of " General Medicine"; it is studied in the sixth and seventh semesters.

### **3. OUTCOME COMPETENCIES OF THE COURSE**

On completing the course a student is expected to

**1. know:**

- The rules of medical ethics and deontology in work with urological patients, colleagues;

- Topographic anatomy, including organs of the urinary system, as well as changes in organs and systems in various pathological conditions to solve professional problems in urology;
- Physiology and pathophysiological changes occurring in the organs of the urinary system in various pathological conditions for solving professional problems in urology;
- Etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, peculiarities of complications and outcomes of urological diseases;
- Methods of laboratory and instrumental studies to assess the condition of urological patients, the main medical indications for research and interpretation of the results;
- Methods of collecting complaints and anamnesis from patients (their legal representatives);
- Methods of physical examination of patients (examination, palpation, percussion, auscultation);
- General issues of organization of specialized care for patients with urological diseases;
- International statistical classification of diseases and health problems (ICD)
- Modern methods of application of medicines, medical devices and medical nutrition in urological diseases in the patient in accordance with the current procedures of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care;
- Modern methods of non-drug treatment of urological diseases in patients in accordance with the current procedures of medical care, clinical recommendations (treatment protocols) on the provision of medical assistance, taking into account the standards of medical care;

## **2. to be able to:**

- Observe the principles of medical ethics and deontology in working with urological patients, colleagues;
- Correctly determine the localization and projection on the skin of the urinary system;
- To compare anatomical changes with impaired functions of the urinary system;
- Collect complaints, life history and medical history of the patient and analyze the received information;
- Conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation);
- Justify the need and scope of laboratory examination of the patient;
- Justify the need and scope of instrumental examination of the patient;
- To justify the need to refer the patient for consultation with doctors special-lists;
- Analyze the results of the examination of the patient, if necessary, justify and plan the amount of additional research;
- Interpret the results of collecting information about the patient's disease;
- Interpret the data obtained during the laboratory examination of the patient;
- Interpret the data obtained during instrumental examination of the patient;
- Interpret the data obtained during the consultations of the patient by specialist doctors;
- To carry out early diagnosis of urological diseases;
- To carry out differential diagnostics of urological diseases with other diseases;
- To determine the order of the volume content and sequence of diagnostic measures;
- To determine the medical indications for emergency medical assistance;
- To plan treatment of the disease and the patient's condition considering the diagnosis, age and clinical picture of the disease in accordance with the orders of medical care, clinical recommendations (treatment protocols) for the provision of medical care to standard medical care;

- Prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age, clinical picture of the disease in accordance with the current rules of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care;
- Prescribe non-drug treatment taking into account the diagnosis, age, clinical picture of the disease in accordance with the current procedures for medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care

### **3. to provide:**

- Apply the rules of medical ethics and deontology in working with urological patients;
- The ability to assess morphofunctional changes in the human body to solve professional problems in urology;
- The ability to assess physiological conditions and pathological processes in the human body to solve professional problems in urology;
- The ability to collect complaints, history of life and disease of the patient;
- The ability to conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation);
- The skill of formulating a preliminary diagnosis and drawing up a plan of laboratory and instrumental examinations of the patient;
- Skill patient referral for laboratory examination for medical reasons in accordance with medical orders in power, clinical guidelines on the provision of in the provision of medical care to standard medical care;
- The ability to refer the patient to an instrumental examination in the presence of medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations on the provision of medical care, taking into account the standards of medical care;
- Skill patient referral for consultation to doctors-to experts when there are medical indications in accordance with the orders of medical care, clinical guidelines on the provision of in the provision of medical care to standard medical care;
- The skill of differential diagnosis with other diseases/conditions, including urgent;
- The ability to establish a diagnosis taking into account the current international statistical classification of diseases and health problems (ICD);
- Skill development of the plan of treatment for the disease or condition, given the diagnosis, the who-age and the clinical picture in accordance with the orders of medical care, clinical guidelines on the provision of medical care to standard medical care
- The skill of prescribing medicines, medical devices and medical equipment, taking into account the diagnosis, age, clinical picture of the disease in accordance with the current procedures of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care;
- Skill assignments non-drug treatment based on diagnosis, age, clinical picture of the disease in accordance with the orders of medical care, clinical recommendations (treatment protocols) for the provision of medical care to standard medical care;
- The technique of performing some medical manipulations in urology (the technique of re-binding and applying bandages to wounds, the technique of primary surgical treatment of urinary wounds, the technique of catheterization of the bladder, the technique of uroflowmetry, the technique of intravenous retrograde and antegrade pyelourethrography, cystourethrography);

Learning outcomes	Competency developed: description (compulsory) threshold level	a of	Competency code
1	2		3
<b>General Professional Competencies (GPC)</b>			
<b>A student knows:</b> rules of medical ethics and deontology in work with urological patients, colleagues; <b>A student is able to:</b> observe the principles of medical ethics and deontology in working with urological patients, colleagues; <b>A students uses / applies / provides:</b> apply the rules of medical ethics and deontology in working with urological patients;	the ability and readiness to implement ethical and deontological principles in professional activities		GPC-4
<b>A student knows:</b> topographical anatomy, including organs of the urinary system, as well as changes in organs and systems in various pathological conditions to solve professional problems in urology; physiology and pathophysiological changes occurring in the organs of the urinary system in various pathological conditions to solve professional problems in urology; <b>A student is able to:</b> correctly determine the localization and projection on the skin of the urinary system; compare anatomical changes with disorders of the urinary system; <b>A students uses / applies / provides:</b> ability to assess morphofunctional changes in the human body to solve professional problems in urology; skill to assess physiological conditions and pathological processes in the human body to solve professional problems in urology;	the ability to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems		GPC-9
<b>Professional competencies (PC)</b>			
	<i>medical activities</i>		
<b>A student knows:</b> methods of laboratory and instrumental studies to assess the condition of urological patients, the main medical indications for research and interpretation of the results; methods of collecting complaints and anamnesis in patients (their legal representatives); methods of physical examination of patients (examination, palpation, percussion, auscultation); <b>A student is able to:</b> to collect complaints, anamnesis of life and illness of a patient and analyze information; conduct a full physical examination of the patient (inspection, palpation, percussion, auscultation); justify the need and scope of laboratory examination of patient; to justify the need and the volume of the instrumental examination of the patient to substantiate the need for patient referral for consultation to doctors specialists; analyze the results of examination of the patient, if necessary, to justify and plan the amount of additional research; to interpret the results of the collection of information about the disease of patient; to interpret data	readiness to collect and analyze patients complaints, their medical history, examination results, laboratory, instrumental, pathological and other studies in order to recognize the condition or establish whether the disease is present or not		PC-5

<p>obtained from laboratory examination of patient; to interpret the data obtained during instrumental examination of the patient; to interpret data obtained during patient consultations by medical specialists;</p> <p><b>A students uses / applies / provides:</b> skill collect complaints, anamnesis of life and disease of the patient; skill in conducting a complete physical examination of the patient (inspection, palpation, percussion, auscultation); skill patient referral for laboratory examination for the presence of medical indications in accordance with the orders of medical care, clinical guidelines assist in the provision of medical care to standard medical care; the skill of sending the patient to the instrumental examination in the presence of medical indications in accordance with the current procedures of medical care, clinical recommendations on the questions of providing medical care, taking into account the standards of medical care; the skill of sending the patient to consult with medical specialists in the presence of medical indications in accordance with the current;</p>		
<p><b>A student knows:</b> General issues of the organization of specialized care for patients with urological diseases; modern methods of use of drugs, medical devices and medical nutrition in urological diseases in the patient in accordance with the current procedures of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care; modern methods of non-drug treatment of urological diseases in the patient in accordance with the current procedures of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care;</p>	<p>ability to determine in a patient the main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Health Problems, X revision</p>	<p>PC-6</p>
<p><b>A student is able to:</b> to determine the order of the volume of the contents and sequence of diagnostic procedures; to determine the medical indications for emergency medical care; plan treatment of the disease and condition of patient's diagnosis, age and clinical picture of the disease in accordance with the orders of medical care, clinical recommendations (treatment protocols) for the provision of medical care to standard medical care; assign medicines, medical devices and health food considering the diagnosis, age, clinical picture of the disease in accordance with the orders of medical care, clinical recommendations (treatment protocols) for the provision of medical care to standard medical care; prescribe non-drug treatment taking into account the diagnosis, age, clinical picture of the disease in accordance with the current procedures for medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>ability to determine the tactics of managing patients with various nosological forms</p>	<p>PC-8</p>

#### 4. THE COURSE (MODULE) 'UROLOGY' SYLLABUS AND CONTENTS

##### 4.1 Total workload is 5 credits (180 ac.h.)

№	Part (Module)	Semester	Week of the semester	Study forms (including self-study and workload in ac.h.)			Formative assessment (weekly) Summative assessment (by semesters)
				Lectures	Practical classes	Self-study	
1.	General questions of urology. History of urology	6	1-2		6		Q T C A/Exam (4 ac.h)
2.	Clinical physiology and anatomy of the genitourinary organs.	6	3	2	3	6	Q T C A/Exam (4 ac.h)
3.	Semiotics and diagnosis of diseases of the genitourinary system	6	4	2	3	21	Q T C A/Exam (4 ac.h)
4.	Abnormalities of the urinary system.	6	5-8	2	12	15	Q T C A/Exam (4 ac.h)
	Emergencies in urology.	6	9	2	3	3	Q T C A/Exam (4 ac.h)
5.	Trauma to the genitourinary organs	6	10-11		6	6	Q T C A/Exam (4 ac.h)
7.	Infectious and inflammatory diseases of the genitourinary system.	6	12-18	4	21	12	Q T C A/Exam (4 ac.h)
8.	Urolithiasis.	7		2	8	6	Q T C A/ Exam (4 ac.h)
9.	Urooncology.	7		6	16	9	Q T C A/ Exam (4 ac.h)
10.	<b>Subtotal: (180 ac.h.)</b>			<b>20</b>	<b>78</b>	<b>78</b>	Exam (4 ac.h)

**Q - Questions , T –Test , C – Cases, A – Abstract**

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Professor,

A.V. Kuzmenko