

## *Summary of the working program of the academic discipline*

### «Fundamentals of endocrinology»

General Educational Program of higher education (specialist's degree programs )

#### **31.05.01 GENERAL MEDICINE**

Department: **ENDOCRINOLOGY AND INTERNAL MEDICINE**

**1. The purpose of mastering the discipline** (*participation in the formation of relevant competencies – specify the codes*):

The aim of the course is to form clinical (conceptual) thinking, including a professional algorithm in solving practical problems in this section of the Clinic of internal Diseases. To form a medical professional behavior in a therapeutic clinic based on deontological principles and ethical norms. To develop students' mental, sensory, motor skills and competencies necessary for a medical doctor to perform their professional duties. To contribute to the improvement of the general culture of a medical university student.

**2. Position of the academic discipline in the structure of the General Educational Program (GEP).**

**2.1.** This is a discipline of the choice of a professional cycle. The discipline is studied in the 12th semester/6 year of study.

**3. Deliverables of mastering the academic discipline and metrics of competence acquisition**

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

| №  | Competence code | The content of the competence (or its part)       | Code and name of the competence acquisition metric | As a result of mastering the discipline, the students should: |  |  |
|----|-----------------|---|--|---|--|--|
|    |                 |   |  | know  | be able to   | possess  |
| 1. | CC-1            | ability to abstract thinking, analysis, synthesis |  |   | to assess the social factors affecting the state of the patient's physical and psychological health: cultural, ethnic, religious, individual, family, social risk factors (unemployment, violence, illness and death | proper maintenance of medical documentation and interpretation of laboratory results, tools of laboratory diagnostic methods |

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|----|-------|--|--|--|--|---|
|    |       |  |  |  | of relatives, etc.)  |   |
| 2. | CC-5  | readiness for self-development, self-realization, self-education, use of creative potential  |  |  | to assess the social factors affecting the state of the patient's physical and psychological health: cultural, ethnic, religious, individual family, social risk factors (unemployment, violence, illness and death of relatives , etc.) | proper maintenance of medical documentation and interpretation of laboratory results , tools of laboratory diagnostic methods |
| 3. | CC-7  | willingness to use first aid techniques , methods of protection in emergency situations  |  | Methods of protection in emergency situations  | Provide first aid  | Manipulations during first aid  |
| 4. | CC-8  | willingness to work in a team, to perceive social, ethnic, confessional and cultural differences with tolerance  |  | fundamentals of legislation Russian Federations for the protection of public health, the main regulatory and technical documents;                        |  |   |
| 5. | GPC-1 | willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, willingness to solve standard tasks of professional activity using information, |  | etiology, pathogenesis and preventive measures and the most common diseases; modern classification and treatment of diseases; criteria for the diagnosis | to assess the patient's condition in order to make a decision on the need to provide him with medical care;  | proper maintenance of medical records and;  |

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|    |       | bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security |  | of various diseases  |   |  |
| 6. | GPC-2 | readiness for communication in oral and written forms in Russian and foreign languages to solve the tasks of professional activity   |  | terminology, using <i>uyusya</i> in professional literature  | To present the clinical picture, principles of treatment and examination in Russian and English.            | Written and oral speech in Russian and English to the extent sufficient for reading professional literature and communication with colleagues. |
| 7. | GPC-4 | ability and willingness to implement ethical and deontological principles in professional activity   |  | fundamentals of legislation Russian Federations for the protection of public health, the main regulatory and technical documents;  |   |  |
| 8. | GPC-5 | ability and willingness to analyze the results of their own activities to prevent professional mistakes  |  | etiology, pathogenesis and preventive measures and the most common diseases; modern classification and treatment of diseases; criteria for the diagnosis of various diseases | to assess the patient's condition in order to make a decision on the need to provide him with medical care; | proper maintenance of medical records and;   |
| 9. | GPC-6 | readiness to maintain  |  |  |   | proper   |

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|     |       | medical records  |  |   |  | maintenance of medical records and;  |
| 10. | GPC-7 | readiness to use basic physico-chemical, mathematical and other natural science concepts and methods in solving professional tasks   |  | Fundamentals of biomedical statistics used to describe the results of clinical trials   | Interpret and interpret the results of clinical trials on which modern clinical practice is based  | The main methods of data description, evaluation of variable differences in dependent and independent groups   |
| 11. | GPC-8 | readiness for medical use of medicines and other substances and their combinations in solving professional tasks                     |  | The main groups of medicinal products used in the clinic of internal diseases, their dosages, multiplicity and routes of administration   | To prescribe medications for various diseases of internal organs   | Methods of evaluating the effectiveness of treatment and the safety of the use of medicinal products   |
| 12. | GPC-9 | ability to assess morphofunctional, physiological states and pathological processes in the human body for solving professional tasks |  | diagnostic methods, diagnostic capabilities of methods of direct examination of the patient therapeutic profile, modern methods of clinical, laboratory, instrumental examination of patients (including endoscopic diagnostic methods, ultrasound diagnostics); criteria for the diagnosis | determine the status of the patient: collect anamnesis, conduct a survey of the patient and/ or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation, measurement of arterial pressure, determination of the properties of arterial pulse , etc.); conduct a primary | methods of general clinical examination I; interpretation and analysis of the results of laboratory tests, tools of laboratory diagnostic methods; the algorithm of a detailed clinical diagnosis; proper maintenance of medical records and |

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|     |        |  |  | of various diseases; clinical picture, features of the course and possible complications of the most common diseases occurring in a typical form in various age groups; | examination of systems and organs: endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs of the digestive system, urinary system, musculoskeletal and joints; fill out a medical history |   |
| 13. | GPC-11 | readiness for the use of medical devices provided for by the procedures for the provision of medical care  |  | Fundamentals of the tool for laboratory diagnostics of internal diseases  | To register an ECG using a portable electrocardiograph  | Methods of functional diagnostics in the clinic of internal diseases                  |
| 14. | PC-1   | ability and readiness to implement a set of measures aimed at preserving and strengthening health and including the formation of a healthy lifestyle, prevention of the occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions of their occurrence and development, as well as aimed at eliminating the harmful effects on human health of environmental factors |  | The main methods of primary and secondary prevention and diseases of internal organs  | To carry out educational work among the population and in groups of patients  | Skills of conducting classes in schools for patients with diseases of internal organs |

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| 15. | PC-5 | <p>readiness to collect and analyze patient complaints, medical history data, examination results, laboratory, instrumental, pathoanatomic and other studies in order to recognize the condition or establish the presence or absence of the disease</p> |  | <p>diagnostic methods, diagnostic capabilities of methods of direct examination of the patient therapeutic profile, modern methods of clinical, laboratory, instrumental examination of patients (incl endoscopic radiologists Czech methods, ultrasound diagnostics); criteria for the diagnosis of various diseases; clinical picture, features of the course and possible complications of the most common diseases occurring in a typical form in various age groups;</p> | <p>determine the status of the patient: collect anamnesis, conduct a survey of the patient and/ or his relatives , conduct a physical examination of the patient (examination, palpation, auscultation, measurement of arterial pressure, determination of the properties of arterial pulse, etc.); conduct a primary examination of systems and organs: endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs of digestive, urinary, musculoskeletal and joints; fill out a medical history</p> | <p>methods of general clinical examinationI; interpretation and analysis of the results of laboratory tests, tools of laboratory diagnostic methods; the algorithm of a detailed clinical diagnosis; proper maintenance of medical records and</p> |
| 16. | PC-6 | <p>the ability to determine in patients the main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical</p>  |  | <p>diagnostic methods, diagnostic capabilities of methods of direct examination of the patient therapeutic profile,</p>   | <p>patient status: collect anamnesis, conduct a survey of the patient and/or his relatives, conduct a physical</p>  | <p>methods of general clinical examination I; interpretation and analysis of the results of laboratory tests,</p>  |

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|     |      | Classification of Diseases and Health-Related Problems (ICD)   |  | modern methods of clinical, laboratory, instrumental examination<br><br>of patients (incl young endoscopic Czech radiologists Czech methods, ultrasound diagnostics); criteria for the diagnosis of various diseases; clinical picture, features of the course and possible complications of the most common diseases occurring in a typical form in various age groups; | examination of the patient (examination, palpation, auscultation, measurement of arterial pressure, determination of the properties of arterial pulse, etc.); conduct a primary examination of systems and organs: endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs of digestive, urinary, musculoskeletal and joints; fill out a medical history | tools of laboratory diagnostic methods; the algorithm of a detailed clinical diagnosis; proper maintenance of medical records and |
| 17. | PC-7 | readiness to carry out the examination of temporary disability, participation in the medical and social examination, the statement of biological death of a person |  | The main criteria for temporary disability of the community in diseases of internal organs   | To identify signs of persistent disability in diseases of internal organs   | By the method of ascertaining the biological causes of human death  |
| 18. | PC-8 | the ability to determine the tactics of managing patients with various nosological forms   |  | Algorithms for diagnosis and treatment of major diseases of internal organs  | Develop a plan for self-examination and treatment for diseases of internal  | Skills to implement the developed treatment plan and examination I am a patient with  |

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|-----|-------|--|--|--|---|--|
|     |       |  |  |  | organs  | pathology of internal organs   |
| 19. | PC-10 | readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care                          |  | Symptoms of acute underlying conditions encountered in the Clinic of Internal Diseases | To provide medical assistance in case of exacerbations of major chronic diseases of internal organs | Skills of providing medical care in exacerbations of chronic diseases                                  |
| 20. | PC-11 | readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention  |  | Symptoms of acute underlying conditions encountered in the Clinic of Internal Diseases | Provide emergency medical care in case of exacerbations of major chronic diseases                   | Skills of providing emergency medical care for exacerbations of chronic diseases of 10 internal organs |
| 21. | PC-14 | readiness to determine the need for the use of natural therapeutic factors, medicinal, non-drug therapy and other methods in patients in need of medical rehabilitation and spa treatment  |  | The main methods of non-drug treatment of major diseases of internal organs            | To determine indications for spa treatment for major diseases of internal organs                    | Skills of non-drug management of diseases of m internal organs   |
| 22. | PC-15 | readiness to teach patients and their relatives basic hygienic measures of a health-improving nature, skills of self-control of basic physiological indicators that contribute to the preservation and promotion of health, disease prevention |  | The main methods of primary and secondary prevention and diseases of internal organs   | To carry out educational work among the population and in groups of patients                        | Skills of conducting classes in schools for patients with diseases of internal organs                  |
| 23. | PC-16 | readiness for educational activities to  |  | The main methods of primary  | To carry out educational work   | Skills of conducting classes in  |

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|     |       | eliminate risk factors and develop healthy lifestyle skills                                    |  | and secondary prevention and diseases of internal organs  | among the population and in groups of patients   | schools for patients with diseases of internal organs   |
| 24. | PC-20 | readiness to analyze and publicly present medical information based on evidence-based medicine |  | The main methods of biomedical statistics used in the analysis and description of the results of clinical trials  | Make a presentation to colleagues  | The skills of preparing a report with the use of multimedia equipment   |
| 25. | PC-21 | ability to participate in scientific research  |  | diagnostic methods, diagnostic capabilities of methods of direct examination of the patient therapeutic profile, modern methods of clinical, laboratory, instrument of laboratory examination of patients (including endoscopic, radiological methods, ultrasound diagnostics); | determine the status of the patient: collect anamnesis, conduct a survey of the patient and/ or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation, measurement of arterial pressure, determination of arterial pulse properties, etc.); | methods of general clinical examination; interpretation and analysis of the results of laboratory tests, tools of laboratory diagnostic methods; the algorithm of a detailed clinical diagnosis; proper management of medical documentation and |

#### 4. Volume of the academic discipline and types of academic work

The total labor intensity of the discipline is 2 credits

| Type of educational work   | Labor intensity             |                               | Labor intensity (AH) in semesters |
|----------------------------|-----------------------------|-------------------------------|-----------------------------------|
|                            | volume in credit units (CU) | volume in academic hours (AH) | 12 semester                       |
| Classroom work, including  |                             |                               |                                   |
| Lectures (L)               | 0,28                        | 10                            | 10                                |
| Laboratory practicum (LP)* | -                           | -                             | -                                 |
| Practicals (P)             | 0,94                        | 34                            | 34                                |
| Seminars (S)               | -                           | -                             | -                                 |

|   |      |    |        |
|---|------|----|--------|
| Student's individual work (SIW)         | 0,78 | 28 | 28     |
| Mid-term assessment                     |      |    |        |
| credit/exam ( <i>specify the type</i> ) |      |    | credit |
| TOTAL LABOR INTENSITY                   | 2    | 72 | 72     |

### 5. Sections of the academic discipline and competencies that are formed

| № | Competence code  | Section name of the discipline                     |
|---|--|--|
| 1 | (CC-1, 4, 7, 8); (GPC-1, 2, 4, 5, 6, 7, 8, 9, 11); (PC -1, 5, 6, 7, 8, 10, 14, 16, 20, 21, 22) | Type 1 and type 2 diabetes mellitus                |
| 2 | (CC-1, 4, 7, 8); (GPC-1, 2, 4, 5, 6, 7, 8, 9, 11); (PC -1, 5, 6, 7, 8, 10, 14, 16, 20, 21, 22) | Diseases of the thyroid and parathyroid glands     |
|   | (CC-1, 4, 7, 8); (GPC-1, 2, 4, 5, 6, 7, 8, 9, 11); (PC -1, 5, 6, 7, 8, 10, 14, 16, 20, 21, 22) | Diseases of the pituitary gland and adrenal glands |