

## PA 7.5.1 SYLLABUS

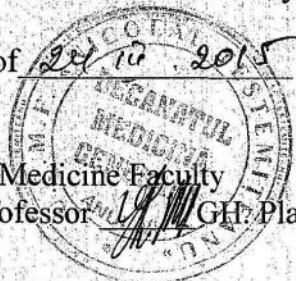
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Approved

At the meeting of the Council of Faculty of  
Medicine 1

Minutes No. 3 of 24.10.2015

Dean of the nr.1 Medicine Faculty  
PhD, associate professor *[Signature]* GH: Placinta



Approved

At the meeting of the Department of Internal  
Medicine, Discipline Internal Medicine

Minutes No. 1 of 28.08.2014

Head of Discipline Internal Medicine  
PhD, univ. professor *[Signature]* Ion Tibirna

### SYLLABUS FOR STUDENTS OF FACULTY OF MEDICINE 1, SPECIALIZATION PUBLIC HEALTH

Name of the course: **Internal Medicine -Semiology**

Code of the course: **S.05.O.042; S.06.O.044**

Type of course: **compulsory**

**Total number of hours – 170**

**lectures -68 hours, practical lessons -102 hours**

Number of credits provided for the course: 10

Lecturers teaching the course: **PhD, professor Minodora Mazur**  
**lecturer Rodica Bugai**

**Chisinau 2014**



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### ***I. Aim of the discipline***

The study methods of clinical examination of therapeutic patients, main and advanced laboratory and instrumental diagnostic methods ;

- To teach how to spot symptoms of internal organ diseases and to understand and explain their origin.
- To teach how to explain the diagnosis of a syndrome;
- To teach the importance of the role of symptoms and syndromes in the diagnosis of some of the most common diseases, with the explanation of the urgent medical help principles in these diseases.

### ***II. Objectives obtained in teaching the discipline***

- At the level of knowledge and understanding
  - To know the basis of ethics and medical deontology;
  - To form an integral vision of the healthy human body;
  - To know a plan of clinical examination of a patient;
  - To know key laboratory and instrumental investigations of a patient;
- At the level of application
  - Implementation of the knowledge of ethics and medical deontology in clinical practice
  - To conduct a full clinical examination of all systems of the human body
  - To detect the symptoms of internal diseases and the order of their appearance
  - To interpret clinically the most important laboratory (complete blood count, urine analysis etc.) and instrumental investigation (ECG, EcoCG etc.) results
  - To aggregate the symptoms in syndromes based on their common origin in the disease process.
  - To argue one's own clinical opinion.
- At the level of integration
  - To assess the importance of Internal Medicine /Semiology in Medicine
  - To apply fundamental medical knowledge creatively in the process of a patient's examination
  - To deduce interrelations between Internal Medicine -Semiology and other fundamental and clinical disciplines
  - To possess the ability to implement and integrate the knowledge of semiology obtained in clinical trials
  - To be able to evaluate and autoevaluate the knowledge in this field;
  - To be able to master novelties of clinical disciplines.



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### ***III. Provisional terms and conditions***

Internal medicine is one of the basic clinical disciplines in the university training of doctors, regardless of the field they will choose subsequently. Its study at the university stage, enables in future doctors to acquire fundamental principles of clinical work with patients. Semiology of internal diseases is an early stage in forming a future specialist in the field of internal medicine.

Being an integral part of Internal Diseases, the course of Medical Semiology aims to form the basis of clinical rationality and medical ethics, to teach them the professional skills needed in clinical and paraclinical examination, as well as the treatment of the patient, necessary skills to any doctor in any medical field.

For a better learning and understanding of the subject students need knowledge of the chemistry, human anatomy and histology, embryology, molecular biology, genetics, human physiology, physiopathology, morphopathology, pharmacology, logic, which are obtained on the preuniversity and university stages of study.

### ***IV. Main theme of the course***

#### ***A. Lectures:***

No.	Theme	No. of hours
1.	Introductory course in semiology of internal diseases. Plan of examination of a patient.	2
2.	Clinical examination of respiratory system. Complaints, general inspection. Inspection of chest wall. Palpation as a method of examination of a patient. Chest palpation. Lung percussion.	2
3.	Auscultation as a method of examination of a patient. Lung auscultation.	2
4.	Condensation syndrome of lung tissue (pneumonia and atelectasis). Clinical signs of pneumonia, their pathogenesis. Pulmonary atelectasis.	2
5.	Bronchial obstruction syndrome. Semiology of acute and chronic bronchitis, bronchial asthma. Hyperaeration syndrome (pulmonary emphysema). COPD	2
6.	Pleural syndromes. Pneumothorax (accumulation of air in the pleural cavity) and hydrothorax (accumulation of fluid in the pleural cavity). Exudative pleurisy, dry pleurisy.	2
7.	Cavitary syndrome. Mediastinal syndromes.	2
8.	Clinical examination of cardiovascular system. Complaints, inspection. Palpation of the heart region and that of large blood vessels. Percussion of heart.	2
9.	Auscultation of the heart. Places of auscultation. Normal heart sounds. Pathological changes of heart sounds. Beats in three phases. Overlapping noises. Rhythm disorders.	2



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10.	Auscultation of the heart. Heart murmurs. Systolic murmurs. Diastolic murmurs. Topography and radiation. Phonocardiography.	2
11.	Examination of peripheral vessels. Assessment of peripheral arterial pulse and blood pressure. Auscultation of vessels. Peripheral veins and arteries disease.	2
12.	Electrocardiography. ECG recording and decoding method. Standard and chest leads. ECG in hypertrophy of heart compartments.	2
13.	Cardiac dysrhythmia.	2
14.	Additional methods for the examination of the cardiovascular system.	2
15.	Clinical syndrome of heart failure. Acute and chronic heart failure.	2
16.	Mitral valvular disease. Mitral stenosis. Mitral insufficiency.	2
17.	Aortic valvular disease. Aortic stenosis. Aortic insufficiency.	2
18.	Clinical syndrome of hypertension. Essential and secondary hypertension.	2
19.	Clinical syndromes of endocarditis, myocarditis, pericarditis.	2
20.	Chronic pulmonary heart. Pulmonary thromboembolism.	2
21.	Coronary insufficiency syndrome. Ischemic heart disease and its clinical forms. Pathogenesis, epidemiology, classification. Clinical, laboratory and instrumental examination.	2
22.	Myocardial infarction. Pathogenesis, stages. Clinical, laboratory and instrumental examination.	2
23.	Methods of examination of patients with disorders of digestive tract. Complaints, inspection, palpation of the abdomen.	2
24.	Clinical syndromes in gastrointestinal tract disease. Examination of patients with gastritis, gastric and duodenal ulcer disease. Gastrointestinal tract cancer	2
25.	Methods of examination of patients with liver and gallbladder: complaints, inspection, palpation of the abdomen, percussion and palpation of the liver, gallbladder and spleen	2
26.	Hepatic syndromes: jaundice, portal hypertension and liver failure.	2
27.	Chronic hepatitis and liver cirrhosis. Supervision and care of patients with disorders of the digestive functions.	2
28.	Clinical and laboratory methods of examination of patients with kidney and urinary tract. Laboratory examination of urine.	2
29.	Clinical syndromes of glomerulonephritis and tubulo-interstitial disease. Acute and chronic glomerulonephritis. Urinary Syndrome. Nephrotic syndrome.	2
30.	Renal amyloidosis. Acute and chronic pyelonephritis. Nephrolithiasis. Syndrome and chronic renal failure.	2



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31.	Methods of examination of patients with disorders of the hematopoietic system. Anemia.	2
32.	Clinical syndromes in diseases of the hematopoietic system. Disorders of leukocyte series. Myeloproliferative syndromes.	2
33.	Lymphoproliferative syndromes. Bleeding diathesis. Methods of examination of patients with endocrine disorders. Clinical syndromes in endocrine diseases. Examination of patients with thyroid diseases and diabetes.	2
34.	Final lesson.	2
	<b>TOTAL</b>	<b>68 h</b>

### *B. Practical lessons:*

No.	Theme	No. of hours
1.	Introductory practical lesson. Deontology and medical ethics. Medical documentation. Plan of examination of patients.	3
2.	The main and general complaints. Current disease history and history of life. General inspection. Hygiene of a patient. Anthropometry, thermometers. Types of thermal curves. Observation of patients with fever.	3
3.	Examination of patients with respiratory diseases: complaints and anamnesis, inspection. Chest palpation. Percussion as a method of investigation of the patient. General rules and technique of percussion.	3
4.	Comparative and topographic percussion of the lungs.	3
5.	General rules and lung auscultation technique. Main and superimposed respiratory sounds. Bronchophony.	3
6.	Syndrome of lung tissue consolidation (pneumonia and atelectasis)	3
7.	Bronchial obstruction syndrome (acute and chronic bronchitis, asthma). Hyper aeration syndrome (pulmonary emphysema).	3
8.	Pleural syndromes. Pneumothorax (accumulation of air in the pleural cavity) and hydrothorax (accumulation of fluid in the pleural cavity). Exudative pleurisy, dry pleurisy.	3
9.	Mediastinal syndromes. Cavitory syndrome. Assessment of practical maneuvers, examining patients with respiratory diseases	3
10.	Examination of patients with cardiovascular disease: complaints and anamnesis, inspection. Palpation of the heart region and that of large blood vessels. Percussion of the heart and large blood vessels. Configuration of the heart.	3
11.	Auscultation of the heart. (Heart sounds).	3
12.	Auscultation of the heart. (Heart murmurs).	3





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13.	Examination of peripheral vessels. Assessment of peripheral arterial pulse and blood pressure. Auscultation of vessels.	3
14.	Method of ECG recording and decoding. ECG in hypertrophy of heart compartments.	3
15.	Additional methods for the examination of the cardiovascular system. Filling of clinical case history.	3
16.	Cardiac dysrhythmia. Automaticity and excitability disorders. Practical examination of ECG.	3
17.	Cardiac dysrhythmia. Conduction disorders.	3
18.	Repetition of practical maneuvers. Checking of a fragment of clinical case history.	3
19.	Mitral valvular disease. Mitral stenosis. Mitral insufficiency. Mitral disease. Mitral valve prolapse.	3
20.	Aortic valvular disease. Aortic stenosis. Aortic insufficiency. Tricuspid valvular disease.	3
21.	Hypertension syndrome. Essential and secondary hypertension. Hypotension.	3
22.	Coronary insufficiency syndrome. Ischemic heart disease and its clinical forms. Pathogenesis, epidemiology, classification. Clinical, laboratory and instrumental examination. ECG and biochemical diagnosis.	3
23.	Myocardial infarction. Pathogenesis, clinical forms, stages. Clinical, laboratory and instrumental examination.	3
24.	Clinical syndromes in endocarditis, myocarditis, pericarditis.	3
25.	Clinical syndrome of heart failure. Acute and chronic heart failure (cardiac asthma, pulmonary edema, pulmonary artery thromboembolism, chronic pulmonary heart).	3
26.	Assessment of practical skills during examination of patients with cardiovascular disease.	3
27.	Examination methods for patients with disorders of digestive tract: complaints and history, inspection, palpation of the abdomen. Clinical syndromes in gastrointestinal tract disease. Examination of patients with gastritis, gastric and duodenal ulcer. Gastrointestinal cancer.	3
28.	Methods of examination of patients with liver and gallbladder diseases: complaints and anamnesis, inspection, percussion and palpation of the liver, gallbladder and spleen.	3
29.	Hepatic syndromes: jaundice, portal hypertension and liver failure. Chronic hepatitis and liver cirrhosis.	3
30.	Clinical and laboratory methods for the examination of patients with kidney and urinary tract disease. Laboratory examination of urine. Clinical syndromes of glomerulonephritis and tubular-interstitial disease. Urinary Syndrome. Nephrotic syndrome. Acute and chronic glomerulo-nephritis. Examination of patients and filling clinical case history.	3



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31.	Renal amyloidosis. Acute and chronic pyelonephritis. Nephrolithiasis. Syndrome and chronic renal failure.	3
32.	Methods of examination of patients with disorders of hematopoietic system. Clinical syndromes in diseases of the hematopoietic system. Myeloproliferative syndrome, lymphoproliferative disorders, anemia. Bleeding diatheses.	3
33.	Methods of examination of patients with endocrine disorders. Clinical syndromes in endocrine diseases. Examination of patients with thyroid diseases and diabetes.	3
34.	Review. Practical test.	3
	<b>TOTAL</b>	<b>102 h</b>

### ***V. Recommended literature:***

#### ***- A. compulsory:***

1. Semiologie Medical . Georgescu M., Bucure ti, 1998
2. Propedeutica Bolilor Interne. Vasilenko V. (romanian), Chi in u 1992

#### ***- B. additional:***

1. Curs de Semiologie Medical . Stanciu C., Ia i, 1990
2. Principiile Medicinii Interne. Harison , Teora 2001
3. Bolile aparatului respirator. Botnaru V., Chi in u, 2002
4. Examenul Clinic în afec iunile aparatului digestiv. Botnaru V., Chi in u, 2005
5. Aspecte clinice în cardiologie. Botnaru V., Chi in u, 1998

### ***VI. Teaching and learning methods***

Internal Medicine - Semiology is the discipline taught in the classical way: lectures and practical lessons. During practical lessons students study the methodology of clinical examination of patients, detection of clinical signs and symptoms and their clinical interpretation, visit the patients for clinical examination, initially together with a lecturer, then alone or in small groups. Subsequently, based on symptoms and clinical signs detected, the clinical interpretation of the given patient is made, the results of laboratory tests are known. The ultimate goal is to develop clinical skills in students and clinical examination of patient, with syndrome diagnosis, making a program of laboratory investigations and treatment principles. The knowledge and practical skills during the course are assessed at the end of the course. It allows to perform monitoring of the training process and efficiency, operative improvement of teaching process.



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### ***VII. Suggestions for individual activity***

From the pedagogical point of view, one of the less efficient learning methods is passive listening of lectures, even in the case of a well-structured and illustrated lecture with the use of multimedia technology. Even if the material is interesting and a student is motivated enough many ways of processing the studied material are needed, in order to learn something. Practical fulfillment is more efficient than reading about how it should be done, but even more efficient is teaching someone how it should be done.

Based on the above, if you want to succeed in acquiring Internal Medicine - Semiology, active work with the material is needed. Below we offer some suggestions:

1. Initially read the material. Take notes. Try to interpret the main ideas yourself. Study the schemas and pictures from the textbook and your notebook. Do the tests from your notebook.
2. Attend the practical and theoretical lessons, but not only to be present physically! Take right notes. Try to understand the information by asking yourself: Do I agree with the teacher? Do I understand what the lesson is about? Is the topic of the lesson the same as the one in the textbook?
3. Ask questions! Ask the teacher, each other and yourself. Do this everywhere, in the lecture hall, teacher's office. The fact that you ask questions means that you understand the material and are working with it, and it is highly commendable. Each student has the right to ask the teacher for tutorials within his/her working hours, the lessons meant to recover lost the course time.
4. Organise yourselves in groups of 2-3 persons and meet up to talk about the course material and to prepare for finals and mid-terms. Usually it's easier to learn the material in small groups than by yourself or in large ones. In addition, the ability to explain the material to your colleagues will facilitate work in the future.
5. An efficient way of profound learning is to participate in scientific meetings of the student body and to participate in scientific discussions. Also doing scientific reports for some lessons can be very useful.
6. Use your time rationally. The discipline Internal Medicine - Semiology requires for a lot of prerequisites to be fully understood. The same thing refers to a lot of other disciplines taught in the course of the year. That's why you have to use your time rationally and be able to find a balance between the effort you need to obtain knowledge, responsibilities and your personal life. According to the requirements, to work an hour with the lecturer, a student should work 1-2 hours individually. That is, to be able to meet the requirements, 5 hours of weekly work should be dedicated for studying Internal Medicine -Semiology .





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**VIII. Methods of assessment** The discipline Internal Medicine – Semiology includes 3 totalizations during the academic year :

- Totalization No. 1: Examination of patients with respiratory diseases;
- Totalization No.2: Examination of patients with cardiovascular diseases;
- Totalization No. 3: Final practical test (all systems);

- Filling a fragment of case history. (I semester).
- Filling a full case history. (at the end of semester II).

The clinical diagnostic test is performed by providing a patient to each student. The student must perform the clinical examination of the patient: taking the complaints, anamnesis, general inspection, inspection, palpation, percussion, auscultation of systems (respiratory, cardiovascular, digestive, urinary, endocrine and hematopoietic) with the interpretation of clinical data, which have to be reflected in a proper formulation of basic clinical syndromes.

The students with average year mark under 5 and students who have not recovered absences at practical lessons are not allowed to exam on Internal Medicine – Semiology.

**The exam** on Internal Medicine-Semiology (final assessment) is a combined one, comprising a grid test (option "Test Editor" SUMP "Nicolae Testemi anu"), oral test (assessment of student's knowledge of the disease etiopathogenesis and clinical picture of the diseases - basic clinical syndromes) and professional practical exam (at the patient's bedside).

The grid test consists of variants of a 100 question test from each of the topics of the course, of which 40 tests are single answer and 60 are multiple answer tests. The student has 2 hours to solve the test. The test is assessed by 0-10 grade.

The oral test is performed by giving each student an examination card out of total of 40 with 3 clinical syndromes questions. The student must know the definition, symptoms and signs that make up the syndrome, name the mechanisms of their occurrence, in which main diseases this syndrome is encountered, the clinical picture of the disease pathogenesis and know the basic principles of paraclinical diagnosis and treatment.

The student has 30 min to prepare the response. The test is assessed by grades from 0 to 10.

Examination subjects (tests, list of clinical syndromes, list of professional skills and cards for the oral test) are approved at the chair meeting and are given to the students at least one month before the session.

Absence from the exam is recorded as "absent" and is equivalent to mark 0 (zero).

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### Methods of mark rounding

The average of current and final marks	Final mark
5	5
5,1-5,5	5,5



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5,6-6,0	6
6,1-6,5	6,5
6,6-7,0	7
7,1-7,5	7,5
7,6-8,0	8
8,1-8,5	8,5
8,6-9,0	9
9,1-9,5	9,5
9,6-10	10

*Absence on examination without good reason is recorded as "absent" and is equivalent to 0 (zero). The student has the right to re-take the exam twice.*

***IX. Language of study***  
***Romanian***