Approved

At the meeting of Council OF Faculty of Medicine 1
Minutes No. 3 of 24.11.2014

Dean of Faculty,
PhD, associate professor Gh. Placinta

Approved

At the meeting the Department of Internal Medicine, Discipline Internal Medicine
Minutes No. 1 of 28.08.2014

Head of the Discipline Internal Medicine
PhD, professor ____ Ion Tibirna

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

Name of the course: **Dietology**

Code of the course: **S.11.O.094**

Type of course: **compulsory**

Total number of hours – 35

lectures -10 hours, practical lessons -25 hours

Number of credits provided for the course: 1.5

Lecturers teaching the course:

PhD, professor IonTIbirna
PhD, professor Minodora Mazur
MD, assos prof. Maria Feghiu
MD, assos. prof. Valentina Butorov

Chisinau 2014

I. Aim of the discipline

- The creation of a physician training system, in the aspect of treating diseases with the help of correct nutrition, depending on the pathogenic mechanisms causing the disease.
- The enrichment of knowledge in the field of rational nutrition
- The enrichment of knowledge pertaining to a balanced diet and the corelation of its components.
- The enhancement and enrichment of the skills of interpretation of clinical and paraclinical data, for the finalization of the diagnostic, development of clinical thinking, diagnosis argumentation, conducting of differential diagnosis, correct formulation of diagnosis, with the indication of a dietary therapy in the respective pathology. Thus, the diet therapy is individualized according to the complexity of metabolic changes.
- The study of dietary principles in various diseases.

II. Objectives obtained in teaching the discipline

- At the level of knowledge and understanding

  - Rational nutrition – its importance for the imposition and insurance of an optimal quantitative intake and balanced qualitative content , namely caloric needs and nutrient contents.
  - Principles of rational nutrition and their compliance, in order to avoid various diseases, such as atherosclerosis, cancer, obesity and diseases of the digestive tract.
  - Individualized dietary nutrition principles based on the complexity of metabolic changes in each disease.
  - Rational nutrition as a prophylactic factor in the occurrence of digestive diseases, such as atherosclerosis, obesity, diabetes, gout, and so on.

- At the level of application

  - Conduct of physical exploration data and anamnesis collection in patients with various diseases.
  - Formulation and reasoning of a presumptive diagnostic.
  - Drafting and reasoning of the laboratory investigations program.
  - Interpretation of biochemical and instrumental investigation results.
  - Conduct of a differential diagnosis.
  - Formulation and reasoning of a positive diagnosis.
  - Training of practical skills in assessing nutritional status and the prescription of a diet at a patient's bedside.
  - Highlighting the importance of a good nutrition based on energetic balance and core nutrient contents in the prophylaxis and treatment of various diseases.

- At the level of integration

- Appreciation of dietology in the context of Internal Medicine and the integration with other related medical courses.
- Creative application of knowledge in the field of dietology, in the process of a patient's medical examination
- Deduction of interrelation between dietology and other medical disciplines.
- Optimal decision-making while indicating diets for known pathologies.
- Formulation of principles of ethics and deontology in the medical assistance of patients.
- Ability to highlight the importance of a rational, balanced nutrition based on core nutrient content in the prophylaxis and treatment of various diseases;
- Formation of practical skills in assessment of nutritional status and habits of dietary prescriptions for various diseases at a patient's bedside

III. Provisional terms and conditions

The dietology course aims at the creation of a physician training system, in the aspect of treatment of diseases with the help of correct nutrition, depending on the pathogenic mechanisms causing the disease.

Dietology is one of the base clinical courses in the academical training of physicians, regardless of the subsequently chosen specialty, is the broadest field of integration and implementation of fundamental knowledge (Anatomy, Human Physiology, pathophysiology, etc..) in clinical practice. Within this discipline, along with studying the clinical manifestations, evolution, treatment and prevention of diseases, future physicians build practical skills related to familiarity and improved knowledge of healthy and unhealthy human nutrition. Particular attention is given to the biochemical bases of nutrition: the characteristics of nutrients, food groups and their nutritional value, and rational nutrition.

The dietology course includes the study of contemporary dietology, with the knowledge of basic diets prescribed in medical institutions and their use in out-patient conditions, dietary guidance in all internal diseases, training in the aspect of treatment of diseases with the help of correct nutrition, depending on the pathogenic mechanisms causing the disease.

The primary study objective is the patient. All topics are discussed based on real life examples. A part of the subjects is studied independently, under the professor's guidance.

The current curriculum forsees teaching dietology to students of the faculty of medicine with a specialization in public healthcare, year VI (semester 11)

For a proper assimilation of the course, prerequisites in the following fields are required: Chemistry, Human Anaomy, Human Histology, Embryology, Molecular Biology, Genetics, Human Physiology, Pathophysiology, Pathomorphology, Pharmacology, Medical Semiology, Internal Medicine; all obtained in previous undergraduate and university studies.

IV. Main theme of the course

A. Lectures:

No.	Theme	No. of hours
1.	Rational nutrition and dietetics.	2
2.	Nutrition in the pulmonary pathology, and that of of allergic etiology.	2
3.	Nutrition in cardiac affections. Nutrition in endocrine diseases.	2
4.	Diet therapy in diseases of the digestive and hepatic and biliary tract.	2
5.	Diet therapy in renal and rheumatic diseases, gout, uric and oxalic diathesis.	2
	Total ore	10

B. Practical lessons:

No.	Theme	No. of hours
1.	**The bases of nutrition. Rational nutrition.** • Basic diets aproved in medical practice. • Proteins and their function in the organism, products with a minimum content of proteins. • Lipids, the physiological role of saturated and unsaturated acids, the main sources of endogenous and exogenous lipids. Fundamental fat sources. • Carbohydrates as a main source of energy. The role of vitamins, nutrients and water in the organism.	2 1 1 1
2.	**Nutrition in the pulmonary pathology, and that of allergic etiology.** • Curative value of diets in lung diesases. • Chemical composition of the main foodstuffs used in the treatment of patients with respiratory disease. • Particular diets in lung suppurations. • Diet therapy in allergic diseases. The allergenic properties of some foodstuffs.	2 1 1 1
3.	**Nutrition in cardiac diseases. Nutrition in endocrine diseases.** • General requirements of food intake in heart disease. The particularities of diet No.10 and its variants, No.10_a, No.10c, No.10 i. • The role of cholesterol in atherosclerosis installation. The pathogenic mechanisms of atherosclerosis. Regimul alimentar în infarctul miocardic pe parcursul perioadelor evolutive. • High blood pressure and nutrition. The value of dietary salt restriction and weight loss. The characteristics of the diet in chronic heart failure. • Diabetes mellitus: etiology, classification. The characteristics of diet No. 9 and	1 1 1

	of its variants. Obesity. Etiopathogenic notions and clinical classification. Diet No.8 and its variants. Indications and contraindications in a diet for obese people. Diet therapy in diseases of the thyroid, adrenal and parathyroid gland. Nutrition in a prolonged treatment with corticosteroids	2
4.	**Diet therapy in diseases of the digestive, pancreatic, hepatic and biliary tract.** Etiopathogenic notions concerning the installation of gastric dyspepsia, gastritis, gastric and duodenal ulcers, intestinal liver and pancreatic disorders. • Diets, variants of diet No. 1 and No. 4, their chemical composition and application in evolutionary stages of gastrointestinal pathology. • Diet No.5 in hepatic and pancreatic pathology, its general caracteristics and variants. Indications for its practical applications.	1 2 2
5.	**Diet therapy in renal, rheumatic and disordered metabolism diseases.** • Introduction to nephropathy. Contemporary classification of kidney diseases. • Diet therapy in glomerulonephritis and pyelonephritis. • Diet therapy in renal and rheumatic diseases, gout, uric and oxalic diathesis. • Undifferentiated colloquium.	1 1 1 2

V. Recommended literature:

- A. compulsory:

1. Ana Vasilache, Georgeta Vasilache. Alimentația rațională și dietoterapie. – Chișinău, 2009
2. Nicolae Opopol. Nutriția în sănătatea publică. – Chișinău, 2008
3. Medicină Internă (manual în 2 vol.).-sub.red.C.Babiuc,Vlada-Tatiana Dumbrava.-Chişinău, 2007.

- B. additional:

1. Harison. Principiile medicinii interne. Vol. I şi II.(Isseibacher K.J., Braunwald E., Wilson J.D. ş.a – Traducere din limba engleză. Ed. Internaţională, Bucureşti, ed. Teora 1989).

VI. Teaching and learning methods

Dietology is the discipline taught in classical way: lectures and practical work. Practical lessons consist of the student ʾs visits to patients for an independent clinical examination, under the guidance of the lecturer, presentation of clinical cases, writing of clinical case history and indication of diet therapy in various pathologies (year VI semester 11), participation in the instrumental examination and treatment of the examined patients. The main object of study is the patient. Each subject provided in the syllabus can be achieved only by the presentation (by one of the students) and discussion of the patient (or patients), with the active participation of all students in the group. Informational technologies are also used (clinical cases at the simulator) in the practical work.

Department reserves the right to make some practical lessons interactively.

VII. Suggestions for individual activity

In terms of teaching, one of the least effective methods of learning is passive listening of lectures, even in the case of well-structured and illustrated lectures with the use of multimedia technologies. Even if the material is interesting, and the student is motivated enough, many ways of processing the studied material are needed. Practice is more effective than reading about how to do it, but better is to teach others to do the same. Based on the above, if you want to succeed in acquiring Internal Medicine discipline 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 schemes 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 notes. Try to understand the information by asking yourself: Do I agree with the lecturer? 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, in the 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 the lost 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 the work in the future.

5. An efficient way of profound learning is to participate in scientific meetings and discussions of students. Also making of scientifical reports for some lessons can be very useful.

6. Use your time rationally. The Internal Medicine discipline requires a lot of prerequisites to be fully understood. The same thing refers to a lot of other disciplines taught during the academic 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, responsabilities 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 to studying Internal Medicine discipline .

VIII. Methods of assessment

Assessment of students' knowledge is made through the appreciation of theoretical knowledge (oral, written test) at the practical lessons, by considering the practical skills in the examination of the patient , argumentation of the diagnosis, evaluation of the clinical case history and solving the clinical problem. The course will be finalized with the oral undifferentiated colloquium.

IX. Language of study
Romanian