

Adopted by the Section Council with Protocol №2 / 30.05.2017

**ACADEMIC STANDARD
FOR THE ACADEMIC DISCIPLINE
"OCCUPATIONAL DISEASES AND TOXICOLOGY"**

1. Purpose of the discipline

The main goal of the training in the discipline "Occupational Diseases and Toxicology" is the acquisition of knowledge and skills for diagnosis and adequate behavior in patients with observed or proven by the relevant regulation occupational disease and acute exogenous poisoning. The realization of the main goal of teaching should be realized through theoretical and practical training in the following areas:

- mastering the peculiarities of taking occupational and toxicological anamnesis and physical status;
- objectification of occupational risks: interpretation of the production characteristics, protocols for investigation of the working environment and other documents regarding the occupational exposure;
- formation of working diagnosis and differential diagnosis;
- appointment of basic and specific tests ;
- clinical assessment - interpretation of data from laboratory and instrumental studies , construction of specific and non-specific syndrome complexes, differential diagnosis, as well as the acquisition of skills for proper therapeutic approach;
- behavior in first aid, early specialized care, treatment;
- acquaintance with the normative documents related to occupational diseases and skills to use them;
- knowledge of the differences between occupational disease, accident at work and related to the work disease;
- knowledge of the principles for the diagnosis of occupational diseases and the criteria for assessing the occupational conditionality of diseases;
- knowledge of the principles of occupational disease expertise;
- preparation of documentation with toxicological or occupational pathology specifics;
- application of all modern forms, methods and means for primary (prevention of occupational disease), secondary (early detection of occupational disease) and tertiary (elimination of long-term effects of occupational disease and improvement of patient prognosis) prevention as a set of medical and non-medical measures to achieve better health and quality of life by isolating risk factors (premorbid prophylaxis), preventing diseases and reducing their consequences.

The purpose of the training corresponds to:

- the mission and concept of the university;

- the volume and credit rating of the discipline , visible from the curriculum;
- the qualification characteristics of the specialty;
- the educational degree MD (Master's degree in Medicine).

The goal is consistent with the place of the discipline in the specialty in importance and chronology in the curriculum.

2. Learning content of the course

The topics and hours for the lectures and tutorials, the schedule for consultations, the assistants and lecturers, the schedule for the semester exam and the instructions for its holding are illustrated on the information board and on the website of MU-Plovdiv. The teaching is in accordance with the schedule for teaching the discipline in streams and groups, which is accepted by the section council and approved by the head of the department for the respective academic year. The study of the course is organized so that the lectures precede the topic of practical exercises in order for students to be able to use already taught material and concepts.

3. Precondition

The student should have the required minimum of theoretical and practical knowledge and skills in "Propaedeutics of Internal Medicine", the teaching of which accompanies the curriculum in the specialty "Medicine".

Third-year students majoring in Medicine are admitted to an exam in Occupational Diseases and Toxicology after taking the practical exercises and lectures provided in the curriculum, and received a signature in the student's book from the assistants and the lecturer.

4. Academic resources

The academic staff of the Section includes 2 habilitated lecturers, 1 non-habilitated lecturer with a scientific degree "Doctor" and 3 non-habilitated lecturers. The habilitated and non-habilitated lecturers, in addition to the specialties "Occupational Diseases" and "Toxicology", have a wide profile of acquired clinical specialties such as "Internal Medicine", "Clinical Allergology", "Nervous Diseases", "Anesthesiology and Intensive Care". The qualification, professional competence and rich clinical experience of the teachers is a prerequisite for achieving high quality training and a guarantee for future professional realization.

The lectures are given by habilitated lecturers (associate professor and professor) with acquired PhD.

The practical exercises are led by non-habilitated lecturers (assistants, chief assistant).

5 . Material resources

The Department of Occupational Diseases with activity in clinical allergology does not have its own material base for conducting practical exercises. The teaching hall of the nephrology department located on the ground floor of the building and the rooms available in the department - doctor's offices, office for functional diagnostics and consultation office are used for teaching. The practical exercises are conducted in the hospital rooms. The classroom in the toxicology clinic is used for teaching "clinical toxicology".

6. Lectures.

The lectures are given by the habilitated lecturers in the auditorium complex of the university. They are presented in the form of multimedia presentations, which, if desired by students, are provided electronically so that they can be used by them in preparation for practical exercises and the semester exam. The topics of the lectures correspond to the approved curriculum of the discipline and are updated according to the novelties in the taught disciplines. The volume and format of the lectures are the choice of the lead lecturer.

7. Tutorials

They are held in groups. Methodical instructions, manuals and tests are provided for the exercises. Individual and team tasks are set. The following is checked: ● the student's preparation, ● the results (acquired knowledge and skills) from the specific exercise. As a methodological form, preference is given to teamwork, setting and solving clinical cases on the topic of the exercise. Emphasis is placed on the practical mastering of the rules for work and treatment of patients with a history of risk factors from the work environment and with a history of toxicological intoxication. Each student is assigned a specific clinical task related to the acquisition and development of diagnostic and therapeutic algorithms for the taught pathology of the exercise program. An important point of the students' practical training is the elaboration of the rules for discussion and resolution of specific clinical cases and the discussion of certain cases related to the studied pathology. Special attention is paid to the regulatory framework for the administration of occupational diseases in Bulgaria, the criteria for diagnosis and assessment of occupational diseases and the expertise of working capacity. The practical exercises in clinical toxicology focus on the application of diagnostic and therapeutic algorithms for behavior in acute exogenous intoxications in accordance with the toxicological pathology studied in the particular exercise.

8. Information resources. Basic literature. Sites

The teacher is obliged to have developed teaching materials for the discipline and if desired by the student should provide them for the needs of his theoretical and practical training.

List of recommended literature

Basic literature - textbooks, manuals, monographs:

1. Occupational nervous and allergic diseases, Zlatka Stoyneva, Svetlan Dermendzhiev, Elestra Publishing House, Sofia, 2015;
2. Occupational diseases, V. Kostova and V. Petkova, S., Ral and Kolobar, 2007;
3. Occupational diseases, A. Savov, S., Ral and Kolobar, 2003;
4. Acute poisoning. St. Andonova, 2nd revised and supplemented ed. Raykov, Plovdiv, 2002;
5. Textbook on occupational diseases. Sofia, Ralkolober, 2010;

6. Hunter's Diseases of Occupations, Tenth Edition Editor (s): Peter J Baxter, Tar-Ching Aw, Anne Cockcroft, Paul Durrington, J Malcolm Harrington. October 29,2010 by CRC Press ;

7. Yanko Iliev. “ Clinical toxicology: lectures for medical students ” . IK-VAP, Plovdiv 2012

Additional sources for preparation:

1 . Hygiene , nutrition and occupational diseases. B. Popov, S., 2009;

2. Monov Al., Clinical Toxicology in 2 volumes. Sofia, Venel OOD, Vol. 1 1995, Vol. 2 1997;

3. Alexandrov N., Practical emergency toxicology. Znanie EOOD, 2000;

4. Emergency care for acute poisoning, Nikola Alexandrov, Milan Milanov, St. Kliment Ohridski University Press, Sofia, 1997;

5. Ellenhorn, Matthews J. et al., “ Ellenhorn , s medical toxicology ” , 1997 ;

6. Peer-reviewed manuals and monographs in English, French, German and Russian, incl. Internet sites with materials on the studied topics - after prior approval by the habilitated person.

9. Control works :

Students must work dynamically and intensively during the semester. It is based on the presumption that the way of acquiring knowledge and skills is an important factor for their depth, durability and applicability. Current control of students' knowledge is conducted through tests at least three times a semester, written development of specific questions on the topic of the exercise, answers to oral questions asked by the teacher and interview on the topic. Students are provided with timely information and explanations of the results of the control (in the next tutorial) to support their further preparation. After announcing the results, the student has the right to get acquainted with his work. The results of these tests are included as a component in the final assessment for the semester.

10. Independent preparation and extracurricular work of the student :

The independent work is guided by the teacher (assistant), who guides the student both in the literary sources and in the methods of their mastering.

11. Cooperation between teachers and students

This cooperation consists of:

- The teacher's commitment to the student and his prior preparation, current difficulties in mastering the material and opportunities to achieve more with an individual learning program.

- Use of consultation hours.

- Involvement of students in teams for research tasks, research, projects, etc.

12. Exams

The forms of assessment of students' knowledge and skills are in accordance with the approved program for studying the discipline and include the following elements:

Ongoing assessment, solving tests, writing an essay.

A final current grade for the semester is formed.

The final current grade for the semester is reflected by the assistant in the personal study card of each student. It is formed on the basis of the following criteria:

- Solved tests
- control written works on the topic of the exercise
- orally asked question (s) on the topic
- performance of a personally assigned clinical task
- student participation in a discussion on the topic of the exercise
- preparation of an abstract

The training in the discipline ends with taking a semester exam in "Occupational Diseases and Toxicology" within the regular exam session for students majoring in "Medicine".

The exam includes solving an entrance test, writing two questions from the syllabus and an oral exam.

13. Evaluation standards

The successful study of the discipline "Occupational Diseases and Toxicology" of the curriculum is assessed as a value of assessments, the placement of which takes into account the levels of reproduction and use of knowledge by students and is based on developed clear standards.

The levels of reproduction and use of knowledge by students are defined as information-reproductive, technological-productive, problem-productive, innovative-creative.

The formation of the final grade of the exam is based on the following criteria and standards:

- Weak (2) receives a student with scarce knowledge, which can not serve as a basis for the next levels of education - preclinical and clinical disciplines.
- Intermediate (3) is given to a student who reproduces the knowledge in a "ready-made scheme", lacking the main points of the developed topic; there is no readiness for independent use of the acquired knowledge and professional competencies; the terminology is not mastered, the presentation is characterized by poor language;
- Good (4) is given to a student who develops the topic descriptively, reproductively, using typical situations; limited independence in the use of acquired knowledge and acquired professional competencies; in the exposition, although there is a good language culture, inaccuracies in the concepts used are observed;
- Very good (5) is given to a student who develops the topic independently productively, non-standardly, looking for a new algorithm and analysis of the used literature data; tries to present and substantiate their thesis; adequately uses the concepts from the scientific field of the studied discipline, has a good language culture;
- Excellent (6) is awarded to a student who independently, logically, with the presence of a creative element brings out the topic; reasonably and originally uses and interprets the literature related to the revealed issue; there is formation and readiness to use the acquired knowledge and professional competencies; accuracy and rich linguistic culture .

At the beginning of the classes, students should be familiar with the assessment standards, the procedures for conducting ongoing control and the opportunities to receive feedback on their progress during the semester.

14. Formation of the final assessment:

The final grade determines the extent to which the student has achieved the goal of education set at the beginning. It is multi-component and includes a written final examination grade, an oral final examination grade and an ongoing assessment grade.

For each component participating in the final assessment, a coefficient of significance is determined (from 0 to 1), and the total sum of the coefficients must always be 1. The final assessment is obtained as the sum of the six-point scores of the various components multiplied by the respective coefficients .

Final grade = k1Q Current control grade + k2 Q Test grade + k3Q O written exam grade + k4Q Oral exam grade

k1 = 0.10 ; k2 = 0.10 ; k3 = 0.50; k4 = 0.30

If one of the components of the final examination is weak 2, the final grade should also be weak 2.

The components involved in the formation of the grade and the coefficients of significance for each discipline are determined by the Academic Council with the adoption of this academic standard of the discipline.

15. Documentation, storage of results and control of the evaluation activity :

- The evaluated students have the right and obligation to be informed about the regulations, procedures and results of the evaluation, to file claims and complaints in case of non-compliance with these rules.
- The student's right within the meaning of the previous point is valid in cases of identified technical omissions or errors (for example, in calculating or applying grades), as well as in serious grounds for discrepancy between the actual demonstrated knowledge, skills and competencies and the final grade for them.
- Corrections of the grades in the cases under the previous paragraph in the student's book, the examination protocol or on the account in the general book are allowed only by the head of the department
- Any disputes and claims from students are addressed in writing to the assessment team, which should give a reasoned answer by the end of the next working day.
- Established and proven cases of serious violations of the student's rights in the assessment of their knowledge, skills and competencies are referred by written complaint to the vice rector .

The exam materials are stored and the students are given the opportunity to get acquainted with them and the grounds for assessment according to the order and procedure announced in advance. The period in which students have access to the examination materials and results is not longer than 3 (three) working days after the date of the examination.

The characteristics of the discipline are provided to the student at the beginning of the study. This is in accordance with the Higher Education Act Art. 56. para. 1 "Teachers are obliged to develop and publish in an appropriate manner and description of the lecture course, including titles and sequences of topics from the curriculum, recommended reading, how to form the assessment and form of testing knowledge and skills."

Assoc. Prof. Dr. Svetlan Dermendzhiev, Ph.D.
Head of the Department of Occupational Diseases and Toxicology

Assoc. Prof. Dr. Vladimir Andonov, Ph.D.
Head of the Second Department of Internal Medicine
Medical Faculty
Medical University - Plovdiv