DISCIPLINE SHEET

ACADEMIC YEAR

2022- 2023

1. DATA ABOUT THE STUDY PROGRAM

1.1 Institution of higher education	UNIVERSITY OF MEDICINE AND PHARMACY OF CRAIOVA
1.2 Faculty	**MEDICINE**
1.3 Department	5
1.4 Study Domain	HEALTH
1.5 Study cycle	LICENCE
1.6 Study program/ Qualification	MEDICINE

2. DATA ABOUT THE DISCIPLINE

2.1 DISCIPLINE NAME				**OCCUPATIONAL MEDICINE AND OCCUPATIONAL DISEASES**	
2.2. Discipline code				MED 4210	
2.3 The holder of course activities				Ionovici Nina; Bunescu Marius-Gabriel	
2.4 The holder of seminar activities				Ionovici Nina; Bunescu Marius-Gabriel;Boicea Ancuta Ramona	
2.5.Academic degree				Assoc.Prof./ Lecturer/Assistant Prof.	
2.6. Employment (base norm/associate)				Base Norm	
2.7. Year of study	**IV**	2.8. Semester	**II**	2.9. Course type (content) 2.10. Regime of discipline (compulsoriness)	**CSD**

3. TOTAL ESTIMATED TIME (teaching hours per semester)

3.1 Number of hours per week	**2**	3.2 From which: course	**1**	3.3 seminary/laboratory	**1**
3.4 Total hours in curriculum	**28**	3.5 From which: course	**14**	3.6 seminary/laboratory	**14**
Time found distribution (hours)					
Study by manual, course support, bibliography, and notes					**6**
Additional documentation in the library, specialized electronic platforms and, on the field					**5**
Training seminars / labs, homework, reports, portfolios, and essays					**5**
Tutoring					**3**
Examinations					**2**
Other activities... counselling, student circles					**1**

3.7 Total hours of individual study	**22**
3.9 Total hours per semester	**50**
3.10 Number of credits[4])	**2**

4. PREREQUISITES (where appropriate)

4.1 curriculum	Students must have strong concepts of anatomy, physiology, pathophysiology, semiology.
4.2 compentency	Students must be capable to perform medical history and examination of the patient's body system

5. CONDITIONS (where appropriate)

5.1. of curse deployment	Lecture Hall with projector / online
5.2. of seminary/ lab deployment	Occupational Medicine Lab / online

6. SPECIFIC COMPETENCES ACCRUED

PROFESSIONAL COMPETENCES	**C1**. To identify the illness and to establish the correct diagnosis of the disease and determine the professional character of the disease. **C2**-Devise and implement specific treatment of identified occupational disease. **C3**-To evaluate properly the risk of individual or collective occupational disease by identifying risk factors in a job and choose and apply appropriate preventive measures. **C4** - to tackle health problems or illness directly related to social, economic, cultural part of their community. **C5**-To initiate and perform a scientific research in his field of competence

TRANSVERSAL COMPETENCES	**C6**. Autonomy and accountability • acquisition of moral guidelines, training of professional and civic attitudes that enable students to be fair, honest, non-confrontational, cooperative and understanding in the face of suffering, available to help people, interested in the developer community; • to know, respect and contribute to the development of moral values and professional ethics; • learn to recognize when a problem arises and provide responsible solutions to solve them. **C7**. Social interaction; • recognize and have respect for diversity and multiculturalism; • have or learn to develop teamwork skills; • communicate orally and in writing the requirements, working methods, the results obtained, consult with the team; • get involved in volunteering, to know the essential problems of the community. **C8.** Personal and professional development • be open to lifelong learning; • aware of the need for individual study as the basis of personal autonomy and professional development; • to capitalize on their optimum and creatively potential for collective activities; • know how to use information and communication technology.

7. DISCIPLINE OBJECTIVES (based on the grid of specific competences acquired)

7.1 The general objective of the discipline	The objective discipline of Occupational Medicine and Occupational Diseases is to provide students of the fourth year, informational and logistical support necessary to understand and to explain how the organism affects the occupational noxes of workers and how to prevent, diagnose and treat occupational diseases as well as notions in health surveillance of workers. We want to instill students respect for workers' health to be able to prevent diseases.
7.2 The specific objectives of the discipline	Through curricula adapted to European standards of quality, teaching methods and evaluation used by involving students in research and clinical assessment of patients, occupational medicine and occupational diseases discipline aims to train cognitive abilities, habits and attitudes that constitute under any medical preventive act, diagnostic, curative and rehabilitation. Upon completion of discipline, student will be able to acquire cognitive abilities, practical abilities and specific attitudes of the medical profession. Cognitive abilities will allow: - Understand the principles of positive diagnosis of occupational disease - Understand the principles of differential diagnosis of occupational diseases - Identify the etiology of diseases - To recognizing the normal and pathological conditions encountered in various professional - To apply the acquired knowledge to use in clinical practice -To synthesize the notions and clinical medical paraclinical the purpose of obtaining a correct diagnosis - Identify risk factors in a job - To evaluate and correctly interpret bulletins of determination occupational risk factors in the workplace. - Know the methods of prevention occupational diseases - Supervise workers'health - Integrate theoretical and practical knowledge acquired from occupational discipline to those in other disciplines and to use the correct diagnosis of occupational diseases - Communicate clearly, rigorous knowledge acquired - Be able to make proposals on technical and organizational measures that can be taken care to decrease the action of occupational noxes to workers PRACTICAL SKILLS - To know how to correctly perform occupational history - To know how to perform medical examinations for employment, periodic adaptation and resumption of activity - To interpret and correctly apply legislations - Correctly interpret analysis reports - To be able to correctly integrate data from a clinical perspective - Organize performing practical work: to form a team, share tasks, collaborate, communicate requirements, prepare equipment, to follow a given protocol, to communicate and discuss in the team

	- Use specific teaching materials and equipment - Be able to establish the diagnosis of occupational competency - To execute maneuvers to perform and record audiogram, the ventilatory function tests, lighting, professional physical effort and microclimate factors. ATTITUDES - Be open to acquiring moral guidelines, training of professional and civic attitudes that enable students to be fair, honest, non-confrontational, cooperative and understanding in the face of suffering, available to help people interested in the the developing community; - To know, respect and contribute to the development of moral values and professional ethics; - Learn to recognize when a problem arises and provide responsible solutions to solve them. Recognize and have respect for diversity and multiculturalism; - Have or learn to develop teamwork abilities; - Communicate orally and in writing requirements, working methods, results, consult with the team; - To get involved in volunteering, to know the essential problems of the community. - Be open to lifelong learning, - To understand the need for individual study as the basis of personal autonomy and professional development; - Optimal use their own creative potential in collective activities; - Know how to use information and communication technology; to take initiative, to be involved in educational activities and scientific discipline

8. CONTENTS

8.1 Course (content units)	No. hours
C1. Occupational Medicine. Definition. The purposes of occupational medicine. Component areas of occupational medicine. Condition of employment. Work capacity and determining factors. Physiology of work - ergonomics. Physiological changes of various devices, systems and functions of the body during work. Professional noxious substances. Action of occupational noxes.	**1**
C2. Professional diseases. Positive diagnosis. Treatment. Prophylaxis. Pneumoconiosis. Definition. Etiology (main etiological factor, predisposing etiological factors period of occupational exposure). Pathogenesis. Silicosis. Definition. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Complications. Evolution. Expertise of working capacity. Treatment. Prophylaxis. Asbestosis. Definition. Etiology. Pathogenesis. Clinical picture. Positive diagnosis. Differential diagnosis. Complications. Evolution. Expertise of working capacity. Treatment. Prophylaxis.	**1**
C3. Coal miner's pneumoconiosis. Definition. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Complications. Evolution. Treatment. Prophylaxis. Occupational diseases caused by organic dusts. Bronchial asthma. Definition. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Complications. Treatment. Prophylaxis. Affirmation of professionalism asthma.	**1**
C4. Byssinosis. Definition. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Treatment.Prophylaxis. Occupational toxins. Definition. The penetration of toxins in the body. Movement, spreading, storage. Biotransformation of toxins professional. Removing toxins from the body work. The mechanisms of action of the toxic exposure and effect relationship and occupational exposure relationship - response. Exposure indicators and indicators of biological effect. Admissible concentrations of professional'toxics.	**1**
C5. Professional intoxication with lead. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Sequelae. The expertise of working capacity. Treatment. Prophylaxis. Specific ecological relationships. Professional intoxication with tetraethyl lead. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Complications. The expertise of working capacity. Treatment. Prophylaxis. Specific ecological relationships.	**1**

C6. Professional intoxication with mercury. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. The expertise of working capacity. Treatment. Prophylaxis. Specific ecological relationships. Professional intoxication by organic mercury compounds. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. The expertise of working capacity. Treatment. Prophylaxis. Specific ecological relationships. Professional intoxication chromium. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Treatment. Prophylaxis.	**1**
C7. Professional intoxication with benzene. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Treatment. Prophylaxis. Specific ecological relationships. Acute professional intoxication with carbon monoxide. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Complications. Treatment. Prophylaxis.	**1**
C8. Acute intoxication professional HCN and cyanic compounds. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Treatment. Prophylaxis. Professional intoxication irritating gases and vapors. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Treatment. Prophylaxis. Specific ecological relations	**1**
C9. Professional intoxication with methyl alcohol. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Treatment. Prophylaxis. Specific ecological relationships. Occupational poisoning with pesticides. General. Classification of pesticides. Occupational exposure. Ways of entering the body. General prevention. - Professional poisoning with organophosphorus pesticides. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Treatment. Prophylaxis.	**1**
C10. Professional intoxication with organochlorine pesticides. Etiology. Pathogenesis. Clinical features. Positive diagnosis.Treatment. Prophylaxis. - Stress at work: triggers, classification of occupational stress, occupational categories exposed, evaluation questionnaires of stress at work, prophylactic measures	**1**
C11. Professional disease through exposure to physical factors. Action of noise on the human body. Effects on the body. Occupational hearing loss and deafness. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Differential diagnosis. Treatment. Prophylaxis. Extraotice effects of noise. General effects**.**	**1**
C12. Professional disease through exposure to trepidations (vibration). Etiology. General Pathophysiology. - Occupational diseases due to occupational trepidations 0-2 Hz frequency (Kinetozele). - Occupational diseases due to occupational trepidations 2-20 Hz frequency. - Occupational diseases due to occupational trepidations 20-200 Hz frequency - Illness through exposure to unfavorable microclimate (warm). Etiology. Clinical features Pathophysiology. Caloric collapse. Cramps calories. Heat stroke. Chronic disorders. Prophylaxis.	**1**
C13. Professional diseases through exposure of electromagnetic nonionizing radiation (EMR). Definition. Features. REM classification. - Professional diseases through exposure to REM hyperfrecvency. - Professional diseases through exposure to infrared. - Occupational diseases by exposure to visible REM	**1**
C14. Professional diseases through exposure to ultraviolet REM. - Occupational diseases by exposure to laser. - Professional diseases through exposure to ionizing REM. Etiology. Pathogenesis. Clinical features. Positive diagnosis. Treatment. Prophylaxis.	**1**
BIBLIOGRAPHY Course Nina Ionovici- Medicina Muncii- note de curs pentru studenti- Ed. Sitech, 2018 Niculescu T - Occupational Medicine, vol I (2008), II (2009) and III (2010), Ed Med Mun Bucharest Cocarla A. - Occupational Medicine Vol I and II, Ed Julius Hatieganu University, Cluj-Napoca, 2009 Silion I., Cordoneanu Cristina - Fundamentals of Occupational Medicine, Theory and Practice, ed. II, Ed Moldogrup, Iasi, 2002 Toma I. - Occupational Medicine, Edition V, Sitech, Craiova, 2011 Act 319 of 2006 - Occupational Health and Safety Act HG 1425 of 2006 - Rules for the application of the law 319/2006 HG 355 of 2007 on workers' health surveillance change by HG 1169 of 2011	
8.2 Practical work (topics / themes)	
1.Methodology knowledge of working conditions. Report, declaring, research and records professional diseases	**1**
2. Employment medical examination and adjustment period. Periodic medical examination	**1**

3. Determination and assessment of professional dust at work.	**1**
4. Determination and assessment of professional toxins to a job.	**1**
5. Determination and assessment of illumination to a workplace.	**1**
6. Determination and assessment of professional of noise.	**1**
7. Determination and assessment of professional physical effort.	**1**
8. Determination and assessment of professional microenvironment in a workplace.	**1**
9. Liminal tonal audiometry in occupational medicine.	**1**
10. Respiratory functional tests.	**1**
11. Tests of cardiovascular function.Reading a standard chest X-ray pneumoconiosis.	**1**
12. Laboratory tests for the assertion of professionalism of asthma.	**1**
13. Occupational medicine practice problems related to women's work.	**1**
14. Occupational medicine practice problems related to adolescent work	**1**
BIBLIOGRAPHY Discipline protocols Niculescu T - Occupational Medicine, vol I (2008), II (2009) and III (2010), Ed Med Mun Bucharest Silion I., Cordoneanu Cristina - Fundamentals of Occupational Medicine, Theory and Practice, ed. II, Ed Moldogrup, Iasi, 2002 Toma I. -The practice of occupational medicine, Edition V Sitech, Craiova, 2011 Act 319 of 2006 - Occupational Health and Safety Act HG 1425 2006 - Rules for the application of the law 319/2006 HG 355 of 2007 on workers' health surveillance change by HG 1169 of 2011	

9. CORROBORATING THE DISCIPLINE CONTENT WITH THE EXPECTATIONS OF EPISTEMIC COMMUNITY REPRESENTATIVES, PROFESSIONAL ASSOCIATIONS AND EMPLOYEE REPRESENTATIVES RELATING TO THIS PROGRAM

- Occupational Medicine and Occupational Diseases discipline is a specialized discipline, compulsory for a student to become a doctor.
- Knowledge, clinical and practical skills specific to the discipline learned will be the foundation for understanding and learning of any medical act preventive, diagnostic, curative and rehabilitation and provide the necessary basis for multidisciplinary collaboration.

10. MHETODOLOGICAL LANDMARKS

Types of activity	Teaching Techniques / learning materials and resources: exposure, interactive lecture, group work, learning problems, test reports, etc.. In case of the appearance of special situations(alerts, emergencies or other types of situations that limit the physical appearance of a person) the activity can take place online using informational platforms agreed upon by the college/university. The online education process will be adapted accordingly as to assure completion of all the objectives provided in the discipline file.
Course	Use these combined methods: lecture, discussion, questioning, illustration
Practical work	Use these combined methods: practical applications, case study projects
Individual study	For the online version: lecture, debate, problematization based on materials provided in advance,before each course or project work

11. RECOVERY PROGRAM

Absences recoveries	**No. absences that can recover**	**Place of deployment**	**Period**	**In charge**	**Scheduling of topics**
	2	Room of practical works	Last week of semester	Group assistant	chronologically 1 theme/day
Schedule consultations / Students' Scientific Circle	2 hours/week/ teacher	Room of practical works	weekly	All teachers	The theme of the week
Program for students poorly trained	2 hours/week	Room of practical works	weekly	All teachers	According to the situation of each student The theme of the week

12. ASSESMENT			
Activity	**Types of assesment**	**Methods of evaluation**	**Percentage from final grade**
Lecture	Formative assesment through essays, projects and surveys during the semester Summative assesment during the exam	Multiple Choice Questions Answering System (MCQ)/MCQ with the help of the IT platform in the online version.	60%
Practical work	Formative assesment through Multiple Choice Questions Answering System (MCQ) or/and descriptive, projects, survey during the semester. Periodic assesment during the semester Summative assesment during the exam	Multiple Choice Questions Answering System (MCQ) simultaneously with the one from the course / with the help of the video platform in the online version.	20%
Periodic assesment			10%
Assesment of individual activity			10%
Minimum performance standard	At least 50% for each component of the evaluation		

13. GUIDANCE AND COUNSELLING PROGRAMS		
Professional guidance and counselling programs (2 hours/monthly)		
Scheduling the hours	**Place of deployment**	**In charge**
Every last Friday of the month	Occupational Medicine lab. /online	All teachers

Endorsement date in the department: 27.09.2022

Department Director,	**Study program coordinator,**	**Discipline holder,**
Assoc. Prof.dr. Kamal Kamal Constantin	**Prof. dr. Marius Eugen Ciurea**	**Assoc. Prof.dr. Ionovici Nina**