

**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	<b>MEDICINE</b>
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	<b>HYGIENE</b>		
2.2. Discipline code	MED 4109		
2.3 The holder of course activities	Prejbeanu Ileana/Radu Lucrețiu		
2.4 The holder of seminar activities	Prejbeanu Ileana /Mihai Marcelina		
2.5. Academic degree	Professor/Associate Professor/Assistant		
2.6. Employment (base norm/associate)	Base norm		
2.7. Year of study	<b>IV</b>	2.8. Semester	<b>I</b>
2.9. Course type (content)			<b>CDD</b>
2.10. Regime of discipline (compulsoriness)			

**3. TOTAL ESTIMATED TIME (teaching hours per semester)**

3.1 Number of hours per week	<b>4</b>	3.2 From witch - course	<b>2</b>	3.3 seminary/laboratory	<b>2</b>
3.4 Total hours in curriculum	<b>56</b>	3.5 From witch - course	<b>28</b>	3.6 seminary/laboratory	<b>28</b>
Time found distribution (hours)					
Study by manual, course support, bibliography, and notes					<b>11</b>
Additional documentation in the library, specialized electronic platforms and, on the field					<b>11</b>
Training seminars / labs, homework, reports, portfolios, and essays					<b>11</b>
Tutoring					<b>2</b>
Examinations					<b>4</b>
Other activities, counselling, student circles					<b>5</b>
3.7 Total hours of individual study	<b>44</b>				
3.9 Total hours per semester	<b>100</b>				
3.10 Number of credits	<b>4</b>				

**4. PREREQUISITES (where appropriate)**

4.1 curriculum	biochemistry, microbiology, virology and parasitology knowledge
4.2 competency	-

**5. CONDITIONS (where appropriate)**

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

**6. SPECIFIC COMPETENCES ACCRUED**

<b>PROFESSIONAL COMPETENCES</b>	C1 – identifying the state of ill-health and accurately diagnosing the conditions
	C3 – assessing correctly the risk of disease or the context of occurrence of an individual/collective disease, followed by the selection and implementation of adequate prophylactic measures
	C4 – approaching of health/ill-health issues from the point of view of the characteristics of the community, in direct relation with the social, economic and/or cultural conditions of the respective community
	C5 – initiating and performing scientific research and/or training activity in the respective domain of competence

<b>TRANSVERSAL COMPETENCES</b>	<p>CT1– autonomy and responsibility:</p> <ul style="list-style-type: none"> <li>▪ achievement of a moral behaviour, of professional and civic attitudes such as correctitude, honesty, tolerance, understanding of sufferance, availability in helping other people, interest in developing the community;</li> <li>▪ knowing and respecting moral valuables and professional ethics;</li> <li>▪ identifying new issues and finding solutions to solve them.</li> </ul> <p>CT2 – social interaction:</p> <ul style="list-style-type: none"> <li>▪ respect of diversity and multicultural environments;</li> <li>▪ development of teamwork skills (communication, consulting, evaluation, etc);</li> <li>▪ expressing tasks, working conditions, results;</li> <li>▪ involvement in voluntary activities, in order to solve essential issues of the community.</li> </ul> <p>CT3 – personal and professional development:</p> <ul style="list-style-type: none"> <li>▪ agreement of a life-long learning behaviour;</li> <li>▪ permanent desire of self-perfection;</li> <li>▪ becoming aware that individual study is the base of autonomy and professional development;</li> <li>▪ optimal and creative put into evidence of his/her own potential in collective activities;</li> <li>▪ use of information and communication technology.</li> </ul>
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## 7. DISCIPLINE OBJECTIVES (based on the grid of specific competences acquired)

7.1 The general objective of the discipline	To understand the influence of the environment on the human health, in order to prevent diseases, to control environmental risks, to reduce the population exposure to environmental risk factors through community concentrated efforts and through efficient use of resources.
7.2 The specific objectives of the discipline	<p>After studying the discipline, the students will have the following cognitive abilities, practical skills and attitudes:</p> <p><b>1. cognitive abilities</b>, which will allow them:</p> <ul style="list-style-type: none"> <li>▪ to describe the structure and properties of environmental factors: air, water, soil, food;</li> <li>▪ to define pollution, contamination, infestation and radioactive contamination of environmental factors;</li> <li>▪ to identify pollution and contamination sources and factors of air, water, soil, food;</li> <li>▪ to identify the effects generated by the environmental risks on human health;</li> <li>▪ to list the specific functions of nutrients in the human nutrition;</li> <li>▪ to evaluate nutritive and energetic value of food;</li> <li>▪ to describe the particularities of the development periods of children and teenagers;</li> <li>▪ to identify the prophylactic measures needed to maintain environmental health and, thus, human communities' health.</li> </ul> <p><b>2. practical skills</b>, which will allow them:</p> <ul style="list-style-type: none"> <li>▪ to organise the lab: to form a team, to distribute tasks, to collaborate, to communicate the requirements, to prepare the materials, to follow the protocol, to register and communicate the results, to discuss them with the team;</li> <li>▪ to use the specific materials and devices;</li> <li>▪ to analyse the quality of the environmental factors (air, water, soil, food) by comparing the values of physical, chemical or microbiological parameters with the accepted limits, according to the present regulations;</li> <li>▪ to examine food from the organoleptic point of view;</li> <li>▪ to establish an individual diagnosis for the physical and psychic development of children.</li> </ul> <p><b>3. attitudes</b>, consisting in:</p> <ul style="list-style-type: none"> <li>▪ knowledge and respect of the moral valuables and professional ethic;</li> <li>▪ correctitude, honesty, tolerance, availability in helping other people, interest in developing the community;</li> <li>▪ identifying a new issue and finding solutions to solve it;</li> <li>▪ development of teamwork skills;</li> <li>▪ agreement of a life-long learning behaviour, permanent desire of self-perfection.</li> </ul>

## 8. CONTENTS

<b>8.1 Course (content units)</b>	Hours
1. <b>Air hygiene:</b> chemical composition and its influence on the human body; air pollution and its direct and indirect actions on the human body; air contamination.	5
2. <b>Water hygiene:</b> individual and community water needs; sources of water; water pathogenic potentialities; quality parameters for drinking water; central and local water supply systems for human collectivities.	3

3. <b>Hygiene of soil:</b> soil properties; soil pathogenic potentialities; characterization of soil health; soil drainage.	1
4. <b>Hygiene of solid and liquid wastes:</b> classification, collection, removal and neutralization.	2
5. <b>Hygiene of radiation:</b> ultraviolet, infrared, light and ionizing radiations - characteristics, sources of radiation, action on the human body, prophylactic measures.	2
6. <b>Inhabited buildings hygiene. Hygiene of public institutions.</b>	2
7. <b>Energy generating nutrients and catalytic nutrients:</b> overview, structure, roles in the human body, the average daily consumption and consequences of unbalanced consumption, dietary sources.	4
8. <b>Food:</b> milk and dairy products; meat, fish and products of meat and fish; eggs; vegetables and fruit; cereals and products from cereals; fats; sugary products; beverages - categories, nutritional and energy value, average daily consumption.	5
9. <b>Pathogenic potential of food:</b> endogenous factors (complexing factors, enzyme inhibitors, protein structures potentially toxic and antinutritive, antivitamin, phenols, inedible mushroom components, alkaloids, glycosides, vasoactive substances, methyl alcohol, excess dietary fiber, substances potentially carcinogenic) and exogenous factors (contaminants, parasites, environmental pollutants, residues of veterinary products, food additives, plastics, detergents, nitrates, nitrites, nitrosamines, radioactive contaminants). Preventive measures to maintain nutritional quality and food safety.	3
10. <b>Hygiene of children and adolescents:</b> physical and psychic stages of children and adolescents' development, influencing factors.	1
<b>BIBLIOGRAPHY</b>	
1. Presented lectures	
2. Vlaicu Brighitha (coord.) – (2000) Elemente de igiena copiilor și adolescenților, Editura Solness, Timișoara.	
3. Prejbeanu Ileana – (2004) Curs de Igiena alimentației pentru studenți, Editura Medicală Universitară, Craiova.	
4. Hilgenkamp Kathryn – (2006) Environmental Health – Ecological Perspectives, Jones and Bartlett Publishers Sudbury, Massachusetts	
5. Prejbeanu Ileana – (2014) Igiena mediului – curs pentru studenții facultății de medicină, Editura Sitech, Craiova	
6. Prejbeanu Ileana – (2016) Essential of Environmental Health and Food Hygiene, Editura Sitech, Craiova.	
<b>8.2 Practical work (topics / themes)</b>	
1. <b>Air hygiene:</b> determining microclimate factors, determination of air pollution, determination of the contamination of air, objects and surfaces.	4
2. <b>Water hygiene:</b> determining contamination and water pollution, water disinfection control, wells drainage, water disinfection under necessity.	3
3. <b>Hygiene of soil:</b> determination of pollution, soil contamination and infestation.	2
4. <b>Hygiene of radiation:</b> determination of radiation, analysis of its influence on the human body.	3
5. <b>Determination of noise pollution and its action on the human body.</b>	1
6. <b>Hygienic and sanitary examination of foods:</b> milk and dairy products, meat, fish and products of meat and fish, eggs, vegetables and fruit, cereals, fats, sugary products, beverages.	7
7. <b>Human - food relationship:</b> analysis of the nutritional status of a community.	2
8. <b>Medical actions in food poisoning.</b>	2
9. <b>Hygiene of children and adolescents:</b> assessment of physical and psychical development of children and adolescents, control of sanitary conditions in a school, evaluation of the children and adolescents timetable.	4
<b>BIBLIOGRAPHY</b>	
1. Labs protocols.	
2. Prejbeanu Ileana – (2002) Igiena alimentației-caiet de lucrări practice pentru studenți, Editura Medicală Universitară, Craiova.	
3. Prejbeanu Ileana – (2015) Igiena mediului. Igienă școlară – caiet de lucrări practice pentru studenții facultății de medicină, Ed. Medicală Universitară Craiova.	

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

Hygiene is a specialty discipline, compulsory in forming the medical students. Theoretical knowledge, practical skills and attitudes achieved by the students during this discipline classes, corroborated with those accomplished with other preventive medicine disciplines, represent a solid background to understand the influence of the environment on the human health and to adopt an adequate preventive behaviour.

## 10. METHODOLOGICAL LANDMARKS

Types of activity	Teaching/learning techniques, materials and resources: lecture, interactive course, team working, solving issues/projects, audio-video recordings. If special contexts (state of alert, state of emergency, other contexts that limit the physical presence of people) occur, the teaching activity could take place online, using web-based platforms accepted by the faculty/university. The online teaching process will be adjusted all the objectives in the Discipline Sheet to be accomplished.
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Course	Exposure, examining conversation, debate.
Practical work	Exposure, examining conversation, debate, practical applications, demonstrations, essays presentations.
Individual study	Preceding every lecture and every lab

### 11. RECOVERY PROGRAM

Absences recoveries	No. absences that can recover	Place of deployment	Period	In charge	Scheduling of topics
	3	Hygiene lab/online	last week of the semester	Prof. Ileana Prejbeanu	
Schedule consultations / Students' Scientific Circle		Hygiene lab/online	weekly, depending on the timetable	Prof. Ileana Prejbeanu	Lecture and lab topics of that week
Program for students poorly trained		Hygiene lab/online	weekly, depending on the timetable	Prof. Ileana Prejbeanu	Lecture and lab topics of that week

### 12. ASSESMENT

Form of activity	Assessment		Percentage of final grade
	Types of assesment	Method of evaluation	
Lecture	Formative assessment: oral Summative assesment: during the exam	Multiple Choice Questions Test. Multiple Choice Questions Answering System using the IT platform in the online version.	60%
Practical work	Formative assessment: oral/practical application/essays/ team work Periodic assessment: at the end of a chapter Summative assesment: during the exam	Practical exam. Multiple Choice Questions Answering System, simultaneously with the lecture exam, using the IT platform in the online version.	20%
Assesment of semester individual activity			20%
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
Weekly, depending on the timetable	Building B, 5 <sup>th</sup> floor/online	prof. Prejbeanu

Endorsement date in the department: 27.09.2022

Department Director,  
Assoc. Prof. Constantin Kamal

Coordinator of study program,  
Prof. Marius Eugen CIUREA

Discipline holder,  
Prof. Ileana PREJBEANU