DISCIPLINE FILE

1. Data about the program

1.1 University	"VICTOR BABES" UNIVERSITY OF MEDICIN AND PHARMAC TIMISOARA
1.2 Faculty	**DENTAL MEDICINE ENGLISH SECTION**
1.3 Departament	XIV Microbiology
1.4 Study domain .....[1)]	Bachelor
1.5 Study cycle[2)]	Bachelor
1.6 Study program/ Calification	Dental Medicine

2. Data about the Discipline

2.1. Discipline name	Hygiene							
2.2 Course lecturer				Bagiu Radu-Vasile				
2.3 Laboratory lecturer				Petrescu Cristina				
2.4 Study year	**II**	2.5 Semester	**III**	2.6 Evaluation type	**Colloquium**	2.7Discipline regime **DI**	Content[3)]	**DD**
							Mandatory[3)]	**DI**

3. Total time (hours of didactic activity per semester)

3.1 Number of hours per week	4	3.2 course	**1**	3.3 laboratory	**1**
3.4 Total hours of the curriculum	**28 (2 hours x 14 weeks/1 sem)**	3.5 course	**14**	3.6 laboratory	**14**

Distribution of time	hours
Study after manual, course support, bibliography and notes	20
Additional documentatin in the library, on the specialized electronic platforms and on the field	5
Training seminars/laboratories/projects, themes, papers,portofolios and essays	5
Tutoring	-
Examination	2
Other activities	-

3.7 Individual study hours	**30**
3.8 Total hours per semester	**60 (2 credits x 30 hours/credit)**
3.9 Credit number[5)]	**2**

4. Preconditions (where applicable)

4.1 curriculum	The fundamental disciplines studied in the 1st year and 1st semester of the 2nd year, which provide the student with the necessary skills for an optimal course of the discipline are: - Physiopathology - Biochemistry - Microbiology - Parasitology

	- Cell Biology	
4.2 skills	The student must perform laboratory tests, must carry out chemical concentration calculations and interpret analysis bulletins.	

5. Conditions (where applicable)

5.1 course progress	The course takes place once a week with the whole series. It is necessary to arrange the timetable so that the course takes place in the amphitheater. For the didactic strategy teaching and material resources are needed (laptop, video projector), as well as the presence of the Internet in the use of e-learning methods.
5.2 laboratory progress	The laboratory is conducted once a week with a group. It is necessary to prepare the laboratory room, corresponding to the topic of the week. The necessary kits, reagents, laboratory utensils, analysis bulletins, inquiry forms, etc., and a sufficient number of up-to-date working protocols must be provided.

6. Specific skills accumulated

Profesional skills	1. Proper assimilation of the specific terminology of hygiene. 2. Correct assessment of the risk of illness or the context of emergence of individual / collective illness, followed by the choice and application of appropriate prophylaxis measures. 3. Addressing health / illness issues in terms of community particularities, in direct relation to the social, economic and /or cultural conditions of the community. 4. Develop and implement an action plan for emergency situations.
Transversal skills	1. Identifying roles and responsibilities in a multidisciplinary team and applying effective relationship and work techniques within the team. 2. Involvement in scientific research activities by participating in the elaboration of papers and speciality studies. 3. Developing critical thinking skills through the efficient use of information resources and communication resources and assisted training (Internet portals, specialized software applications, databases, on-line courses, etc.).

7. Objectives of the discipline (based on he specific competences accumulated)

7.1 The general objectives of the discipline	Specifying the role of hygiene in modern medicine by learning students with ways of assessing environmental and disease risk management, promoting a healthy lifestyle and forming a responsible attitude towards health.
7.2 Specific objectives	1. ***Knowledge Objectives***: To identify the risk factors and environmental protection factors (air, water, soil, housing, hospital, food) in relation to the state of human health; to define and describe the concept of risk; to define the concept of food safety and security; to describe and present hygiene rules and prevention measures in hospitals, homes, the work environment, for the sick and the general population. 2. ***Empowering objectives***: Perform laboratory determinations on environmental factors; to interpret the results of the analysis bulletins; to carry out a chemical and microbiological risk assessment; to carry out epidemiological inquiry, food survey, assessment of nutritional status; to draw up a plan of preventive measures. 3. ***Attitudinal objectives***: To promote a healthy lifestyle; to observe teamwork; to respect the ethics of the profession and the responsibilities it imposes in professional practice.

8. Content

8.1 Course	Teaching methods	Hours/week	Observation
1. Introductory course. Environmental health novelties: the environment, environmental factors, basic requirements for a healthy environment, environmental medicine, the contemporary ecological crisis in relation to the health of the environment and the health of the population (global warming and its consequences, deforestation, resource reduction, desertification, environmental pollution, demographic changes, the emergence and recurrence of infections).	EXHIBITIONS (Lecture, Explanation), CONVERSATIVE (Heuristic Conversation, Discussion) EFFECTIVE ACTION (Application Making, Case Study) COMMUNICATION BY WRITTEN LANGUAGE (Training through reading) PROBLEM SOLVING	**2**	The courses are well structured and interactive, with powerpoint presentations and examples from reality, with an iconography of rich and suggestive presentations (pictures, tables, explanatory schemes). The material is continually adapted to include the latest information in the field of hygiene and is available on the Moodle e-learning platform of the university. The course follows the events of the lesson plan: The organizational moment; Capture of attention (presentation of the theme, its importance and objectives); Updating knowledge; The actual course development; Knowledge fixation (home message); Final evaluation (verifying the degree of information retention, by screening a set of questions or an e-learning method); Feedback (feedback
2. Ambient air: physical characteristics (temperature, humidity, air movement, atmospheric pressure, aeroionisation, terrestrial electric field, terrestrial magnetic field, for each factor: ecological peculiarities and relationship with health status), chemical characteristics (oxygen, carbon dioxide, nitrogen, ozone, for each factor: ecological peculiarities and the relation to health status). Air pollution (factors that condition air pollution and self-purification of air: sources of pollution, meteoric-climatic conditions, natural and artificial topographic features; health-related pollution and medical measures to monitor air quality (maximum admissible concentrations, biological markers)		2	
3. Occupational indoor air. Sanitary units: constructive and functional sanitary conditions by type of units; biological conditions – air microflora, the role of air in transmission of infectious diseases and prophylaxis; nosocomial infections: contemporary features, enteropathogenesis, epidemiology, prophylaxis		2	
4. Non-ionizing radiation: solar radiation, infrared radiation, light radiation, ultraviolet radiation		2	

(sources and relation to health status: general and local direct action - skin, eye, meninges, indirect action on environmental factors, prophylaxis). Ionizing Radiation: Natural Radioactivity and Natural Irradiation / Year / Individual; artificial radioactivity - medical, professional radio-exposure, through consumer products, nuclear explosions, radioactive waste, accidents to nuclear power plants in operation. Radioecology: accumulation of radioisotopes in environmental factors, increased radioactivity, primary and secondary ecological effects. Radio genetics: tissue radio sensitivity; early biological effects by global and localized external radio exposures to the human embryo; late biological somatic and genetic effects. Radioprotection - monitoring of human radio-exposure.			provided to students about their activity and performance during teaching); Ending the course.
5. Water: sources (atmospheric, meteoric, underground, surface) and sanitary characteristics; natural and artificial water pollution; water self-purification; non-specific water consumption (individual needs and human collectivities needs). Sanitary requirements of central drinking water supply: advantages, water catchment sector, surface water treatment sector (simple sedimentation and coagulation, slow and rapid filtration, water disinfection with physical methods - boiling distillation, ultraviolet, ionizing radiation water disinfection with chemical methods - with chlorine, iodine and bromine, potassium permanganate, ozone, silver), water storage - sanitary requirements of water tanks, water distribution sector - sanitary requirements of the underground pipeline network.		2	
6. Energy requirement: basal metabolism and additional energy expenditure (food-induced thermogenesis, muscle activity,		2	

thermoregulation under unfavourable microclimate conditions); the effects of caloric under-nutrition (causes, consequences); the effects of caloric overheating (forms, consequences). The need for nutrients (proteins, carbohydrates and lipids) and no calorigenic substances (water-soluble and liposoluble vitamins, mineral elements): classification of nutrients according to their biological value, role in nutrition, quantitative and qualitative needs, food sources, inappropriate consumption.			
7. The need for natural foods: milk and milk derivatives; meat and meat products; eggs; fruits and vegetables. Forms of consumption and ways of obtaining; composition and nutritional value; necessary; the effects of inappropriate consumption (flawed, exaggerated)		2	

References

1. Brigitha Vlaicu, Radu Bagiu, Course on environmental hygiene, food and nutrition, Ed. Solness, Timişoara, 2012

8.2 Laboratory	Teaching methods	Hours/week	Observation
1. Methodology for determining microclimate (temperature, humidity, air currents, calorific radiation). Sanitary rules	EXPOZITIVE (Lecture, Explanation, Description), CONVERSATIVE (Heuristic Conversation, Talk), EFFECTIVE ACTION (Laboratory Determination, Case Study), PROBLEM SOLVING	2	The conduct of the activity respects the events in the lesson plan: The organizational moment; Capture of attention (presentation of the theme, its importance and objectives); Updating knowledge; The actual development of the practical work (explanation of the working technique,
2. Methodology for determination of air vitiation. Sanitary rules. Methodology for the assessment of lighting in the rooms. Sanitary rules		2	
3. Methodology for determination of microbial flora: air microflora, microbial flora on the surfaces, the hands of medical-		2	

sanitary personnel, instrumental, lingerie. Sanitary rules			execution of the laboratory determination); Knowledge fixation (home message); Final evaluation of the practical work (verifying the degree of retention of information); Feedback (feedback is provided to students about their activity and performance during practical work); Concluding the practical work.
4. Methodology for assessing water quality conditions: organoleptic, physical, chemical, bacteriological, biological properties		2	
5. Health control (organoleptic, physical, chemical, bacteriological, toxicological, parasitological) in milk and milk derivatives; meat and meat products		2	
6. Sanitary control (organoleptic, physical, chemical, bacteriological, toxicological, parasitological) of eggs; vegetables and fruits		2	
7. **Practical exam.**		2	
References 1. Petrescu C. Practical Elements of Hygiene Environment, Nutrition and School Hygiene, Timisoara, Eurobit 2002			

9. Corroborating the contents of the discipline with the expectations of the representatives of the epistemic communities, professional associations and representatives employers in the field related to the program

Under the current conditions of increasing the number of chronic pathological illnesses, the correct and effective approach is to prevent disease.
In this context, the role of Hygiene as an integral part of Preventive Medicine is important. The content of the subject is consistent with the structure of the courses at the prestigious universities in the country and abroad and covers the necessary aspects of training the general practitioner in the field of preventive medicine.
The competences gained through this discipline enable the future general practitioner:
- to apply primary prophylactic measures to the patient

- to make health education and promote a healthy lifestyle

- to reduce the number of diseases in the population

- to reduce the risk of nosocomial infections

- to be involved in environmental protection actions

10. Evaluation

Activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 % of the final grade
10.4 Course	*Knowledge for 5*: correct resolution of 60% of the MCQ *Knowledge for 10:* correct resolution of 95% of the MCQ	**Final evaluation.** Grid test in the session with 50 questions with single and multiple answers, lasting 60 minutes from the lecture topics. Correction is similar to the residency exam, and the equivalence of score scores is according to the approved grid at university level.	50%
10.5 Laboratory	• *Knowledge for 5*: 50% of the grid test and 50% of the correction scale to the practical assessment *Knowledge for 10*: 95% of the grid test and 95% of the correction scale to the practical assessment	**Practical exam** Test with 10 multiple-choice questions and Practical Assessment (analysis analysis, epidemiological inquiry, risk analysis, etc.)	40%
10.6		**Continuous rating:** (project execution, presentation of papers)	10%

Date	Course lecturer signature Lecturer Dr. Bagiu Radu-Vasile	Laboratory lecturer signature 1. Assoc. Prof. Dr. Petrescu Cristina
Discipline coordinator signature Prof. Univ. Dr. Vlaicu Brigitha		
Department approval date	Department director signature Prof. Univ. Vlaicu Brigitha	

Notă:

1) Domeniul de studii - *se alege una din variantele:* Licenţă/ Masterat/ Doctorat (**se completează conform cu Nomenclatorul domeniilor şi al specializărilor/ programelor de studii universitare în vigoare**) ;

2) Ciclul de studii - *se alege una din variantele:* Licenţă/ Master/ Doctorat;

3) Regimul disciplinei (conţinut) - *se alege una din variantele:* **DF** (disciplină fundamentală)/ **DD** (disciplină din domeniu)/ **DS** (disciplină de specialitate)/ **DC** (disciplină complementară) - *pentru nivelul de licenţă;* **DAP** (disciplină de aprofundare)/ **DSI** (disciplină de sinteză)/ **DCA** (disciplină de cunoaştere avansată) - *pentru nivelul de masterat*;

4) Regimul disciplinei (obligativitate) - *se alege una din variantele:* **DI** (disciplină obligatorie)/ **DO** (disciplină opţională)/ **DFac** (disciplină facultativă);

[5] Un credit este echivalent cu 25 – 30 de ore de studiu (activităţi didactice şi studiu individual).

[6] Pentru specializările şi/sau disciplinele a căror tematică se regăseşte în bibliografia de rezidenţiat, aceasta devine obligatorie.